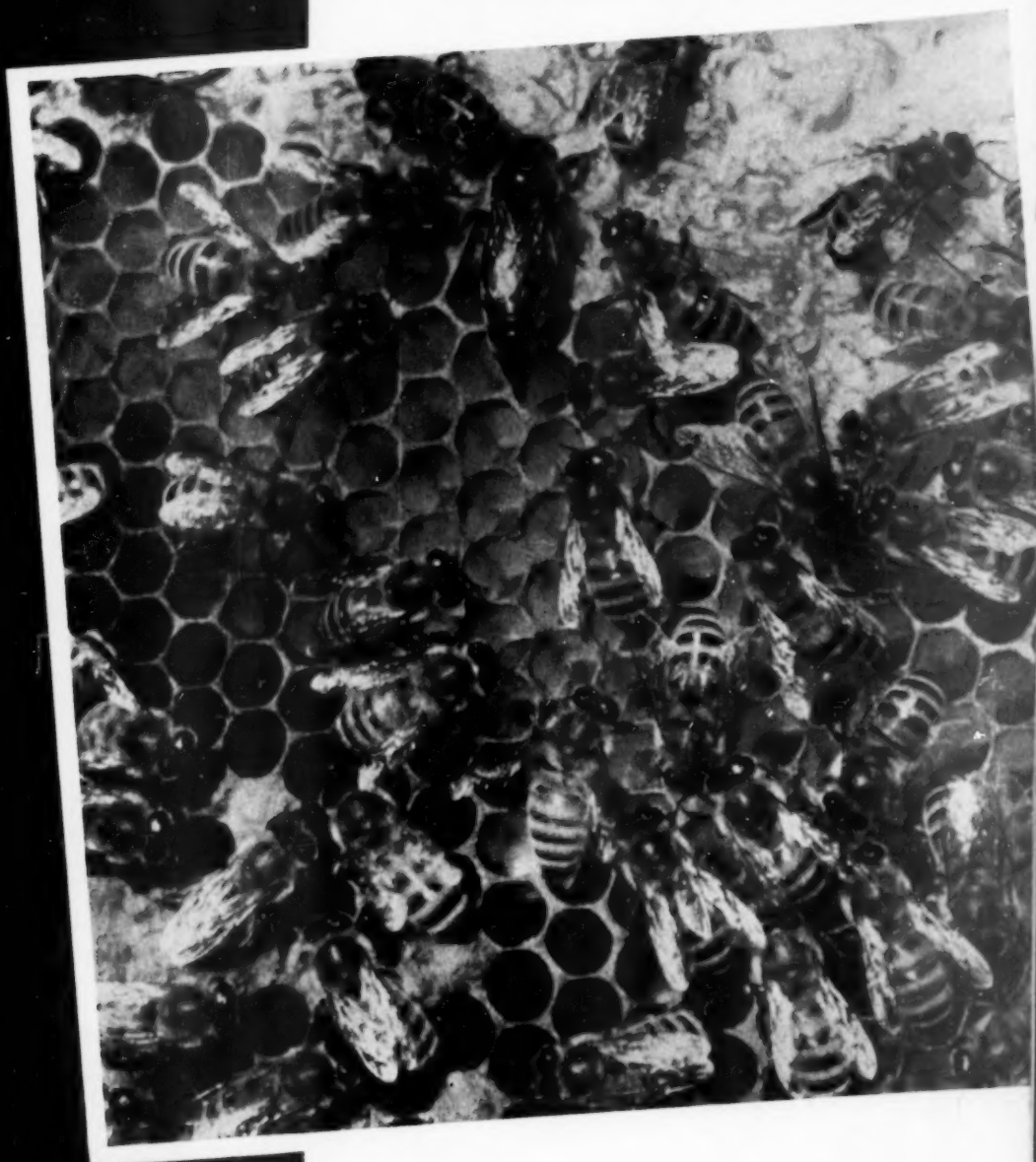


# AMERICAN BEE JOURNAL



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JANUARY

Volume 93, No. 1



# **"Something Extra—"**

like the extra value  
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Lewis Nailless Topbar Frames just fold together. They save you time and money. They cost no more than ordinary frames.

Be prepared for the coming season. Order your bee supplies today from your nearest Lewis-Dadant Dealer. If you don't know his name and address, write us.

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Pat. Off.

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for 1953.

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## HIVES and SUPERS

Quality, the finest.  
Lumber full thickness,  
clear, soft pine.

Aluminum for covers and  
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covers for long service  
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Triple lock-corner frames.  
Price low. Write for  
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25 to 49	2.90	3.45	3.95
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20% with Order, Balance Before  
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**\* Translation**  
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**GARON'S THREE-BANDED ITALIANS.**

Watch this space for prices in the February issue.

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QUEENS — PACKAGES — ITALIANS  
DURING THE PAST 26 YEARS we have shipped many thousands  
of queens and packages.  
**WEAVER APIARIES** Navasota, Texas



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A Prosperous  
1953**

Why not resolve to order those packages and queens early and get your preferred shipping dates.

Resolve to use Dadant's Starline Hybrids because they are Productive and Disease Resistant as well as Easy to Handle.

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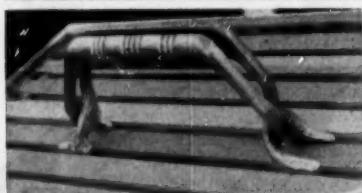
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for 1953

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ONE DOLLAR EACH**

**WHITE PINE BEE FARMS**  
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CARLOADS AND LESS THAN CARLOADS  
Send samples and quote best cash price delivered to us. All grades.

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Vol. 93, No. 1

January, 1953

**THE AMERICAN BEE JOURNAL**  
HAMILTON, ILLINOIS

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Marianne Williams (left) is five minutes older than her twin sister Marilyn. They have been fed honey almost since birth and at ten months weighed over 33 pounds. Grandpa F. M. Williams of Castleberry, Ala., sent the picture.

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### OUR COVER PICTURE

Mark C. Olson, of Spokane, Wash., sent us this picture last spring. He has a 35 mm. Retina II-A camera and has been experimenting with bee photography. This is a shot of a fall supersedure queen. Note her vigorous look and perfect wings. Mr. Olson has fifty colonies which he operates in his spare time. We hope to have more photographs from him.

### HAPPY NEW YEAR!

FLORIDA BEE &  
HONEY CO.

2949 Sanford Road  
Orlando, Fla.



### START THE NEW YEAR RIGHT

Personally Reared  
CAUCASIAN QUEENS  
PACKAGE BEES

**HOWARD WEAVER**

Navasota, Texas

### PACKAGE BEES with Mated Queens ITALIAN or CAUCASIAN

Customers, they are better bred, more profitable, gentle, and good honey producers. No deposit required to book your order, full weight, health certificate, and live arrival guaranteed with each shipment. Send your requirements now. Prices:

Lots of	Queens	2-lb.	3-lb.	4-lb.
1-25	\$1.15	\$3.00	\$3.50	\$4.85
25-50	1.05	2.90	3.40	4.75
50-100	1.00	2.85	3.35	4.65

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Shannon, Mississippi

### THRIFTY BEES

Combless packages and queens.  
Three-banded Italians only

WRITE FOR PRICES.

REMEMBER—Thrifty Bees are  
Guaranteed to please.

**W. J. Forehand & Sons**

Fort Deposit, Ala.  
Breeders Since 1892.

### Treat Your Hives With

**CUPRINOL** <sup>®</sup> **STOPS ROT**

Applied by brush, spray or dip to the bare wood, Cuprinol will greatly lengthen the life of your hives by stopping rot. May be painted over. Does not offend bees. At hardware, paint and lumber dealers or direct. \$4.70 gal.; \$1.75 qt. Check or money order. No C.O.D.'s

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High Quality Queens  
and  
Package Bees for 1953

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New Brockton, Ala.

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Is

Looking forward to better opportunities to serve the beekeeping industry in 1953. Your first opportunity is to buy your supplies where you can save money and afford us an opportunity to again serve you in the season ahead.

Write for our 1953 catalog that will be off the press by February 15th. Order your supplies direct from the manufacturer and compare.

## MARSHFIELD MFG. COMPANY, INC.

MARSHFIELD, WISCONSIN

Apiary Supplies

## PACKAGE BEES

Our **THREE-BANDED ITALIAN BEES** have been bred for greater honey production. Our northern location in Texas means a lower delivered cost to you. Our records will prove prompt shipments as specified. We guarantee safe express delivery. Advise quantity and dates desired and we will gladly make quotation. First shipments March 10th.

• • •

**T. W. BURLESON & SON**

Waxahachie, Texas

## NEW YEAR'S GREETINGS to ALL

As each new year unfolds before us we are reminded of the fleetness of time. A trite, but ever timely saying—"it's later than you think." The question comes to each of us: "How well are we prepared to meet today's challenges?"

Experiences of the past (many years for some of us) have left their imprint indelibly

in our memories. Anxieties and years combine to take a toll of personalities, many in the height of their usefulness to the industry. May we pause to pay homage to those who have made their contribution in an ever changing world. Hope springs eternal in the breast of every true beekeeper, and optimism is the stabilizing force to keep us up and going.

Inquiries, and orders already booked we believe are a good criterion of the attitude of beekeepers generally. Which fact encouraged us to proceed with our preparations for the coming season at an accelerated rate. Our suggestion to customers and those considering purchase of bees and queens is to place your orders as early as possible.



### Quantities

1-24  
25-99  
100-up

Prices: Shipment to start near April 1st.

### 2-lb. Pkgs. W/Q

\$3.75  
3.50  
3.25

### 3-lb. Pkgs. W/Q

\$4.75  
4.50  
4.25

### Queens

\$1.30  
1.20  
1.10



The above prices are for/or with "Magnolia State" Italian queens. Dadant "Starline" Hybrid queens 25c additional. Better Express and Parcel Post services were assured shippers at the recent meeting of the American Bee Breeders Association and Southern States Beekeeping Federation at Baton Rouge, La.

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**Starline**

**SUNKIST**

**Italian**

We offer top quality service and satisfaction with our queens and packages. Guaranteed live delivery. Shipments start the latter part of March.

Prices on Dadant's Starline queens ready after Jan. 1, 1953



Prices on Italian queens and packages:

	Italian Queens	2-lb.	3-lb.	4-lb.
1-24	\$1.20	\$3.50	\$4.50	\$5.50
25-99	1.10	3.25	4.25	5.25
100-up	1.00	3.00	4.00	5.00

**SUNKIST BEE COMPANY**

**CONVENT, LA.**

**STOLLER'S**

**FRAMESPACERS**

The finest thing ever offered beekeepers. See your dealer or write.

**STOLLER HONEY FARMS**  
Latty, Ohio

**Three-Banded Italian Package Bees and Queens**

**QUALITY AND QUANTITY**

with the kind of service you have a right to expect.

Lots of	Queens	2-lb. w.q.	3-lb. w.q.	4-lb. w.q.
1-25	\$1.15	\$3.00	\$3.90	\$4.85
25-50	1.05	2.90	3.80	4.75
50-100	1.00	2.85	3.75	4.65

**HOMAN BROS.**

**Rt. 2**

**Shannon, Miss.**

**INSIST ON  
LEAHY BEEHIVES**

**For 1953**

- Top Quality
- Prompt Service
- Moderately Priced
- Personalized Attention to Each Order

Our 1953 Catalogue will be ready soon. Write today for your copy, it is Free.

**LEAHY  
MANUFACTURING CO.**

**Box 269**

**HIGGINSVILLE, MISSOURI**

**YORK'S  
PACKAGE BEES AND QUEENS  
FOR 1953**

**Quality Bred Italians**

**Quality Bred Dadant Starline Hybrids**

NOW BOOKING ORDERS for choice shipping dates and getting ready to serve you with HIGHEST QUALITY bees and best possible service. Our large number of colonies enables us to give your order PROMPT ATTENTION for shipment by your TRUCK, PARCEL POST, or EXPRESS. For the first time, offering DADANT'S STARLINE HYBRIDS reared with the same careful attention we give our own HONEY PRODUCING strain. Shipping details upon request. For choice SHIPPING DATES book your order now.

*The Strains Preferred by Leading  
Honey Producers*



**YORK BEE CO.**

**JESUP, GEORGIA**

(The Universal Aparies)

## ALL AROUND

## THE BEE YARD

by G. H. Cale

Well—here it is—1953! January, 1952 seems only a step, back around the corner. We need snow cover here in the Midwest. The ground alternately freezes and thaws, so clovers may be battling for survival. Memory pictures of each bee yard and its surroundings come and go, each in turn presenting questions about this year's crop; or the set-up for our pollination ventures.

So 1953, begins its way, as the new year always does, but each year always ends up somehow with more on the right side than on the wrong. Beekeepers are proverbially optimists, in spite of evidence to the contrary; otherwise they would not remain beekeepers. Perhaps none of us are beekeepers. I know a legion of folks who are but only in the sense that they do possess beehives inhabited by bees (supposedly). They are the indifferent whose numbers are large. The rest of us are honey producers or pollinizers. We are the humble managers of divine handiwork.

Perhaps it is too soon to know the exact basis for the continuation of price support for honey for the year, but it seems quite sure that there will be a continuation. Whether you believe in the various aids to producers that the government has extended of late years or not, the fact is that the support has toned up the market as no other stimulation could have done. Add the greatly increased advertising and publicity about honey and you have a team that deserves all you can give it.

The sorriest thing about all this drive and stimulation is that less than ten per cent of the producers, the actual honey producers, took any

part in any of it. Let's repeat, a bit differently, less than ten per cent of those who produce and sell honey took any part in the great fall drive! Those who did were the enthusiastic government boys in the Food Distribution Branch of the Production and Marketing Administration and the larger distributors and the producer-packers. The associations in many places did a grand job of cooperation too. But, let's not be too critical of those who have not yet sensed their duty in working this way for common good. It is always the same in similar efforts everywhere. Once is not enough to get to the grass roots. Now that we have started let's keep on and on and on and on - - -

We need sustained effort by Institute and Federation and Associations and individuals. A periodic drive is good; price support is good; but sustained effort is best.

I wish the Federation meeting this year was not way out in California. California is a grand place but money is getting cheap; paper dollars are not worth more than a round fifty cent piece used to be. So we think many who would have gone may not do so. We will try to have as full an account of what takes place as possible. Perhaps, with a few well placed regional meetings, followed later by an annual all-out meeting, those who know little about either the Institute or the Federation would soon learn that we do have two grand national groups working unstintingly for all of us. Support should then come more easily.

Not much bee yard talk so far; too winterish. Up to late December we had spring weather; frequent flight days, no colony wear, but likely above normal consumption of stores. Better plan now to get out

as early as possible, even in the winter's end, to see that you don't once more have "winter loss" from starvation. Late winter and very early spring feeding will cut your winter losses so you may in time forget that old phrase.

One of my failures is perhaps due to laziness. Each season I look forward to late fall, winter, and early spring, determined that my equipment will be fixed up. Lots of weathered and old hives, loose at the seams, to renail and paint. And the bottom boards! Land sakes, some hives might as well set on the ground. I know you boys who have nice hive stands will be aghast at this, but, risking repetition, I find that a nice hive stand often costs as much as the bottom board. So I don't have enough stands. I have no actual stands, just old, wornout bottom boards, turned crosswise; or metal squares, or wood strips, or—just nothing. Well, I should make a lot of new bottom boards, but I can't find any cheap lumber in sufficient quantity. Got an old building you want to sell me? Or some old packing boxes? I'll make my own bottom boards. I know the "store" kind are best; and maybe I should get some and use stands under them. But who's got that much dough? Huh?

Happy New Year. And, let's remember that if we say "God make it that way" we are throwing the burden where it doesn't belong. The heavenly setting is here, made for us. The only reason it is bad or unfavorable is because we have messed things up. Perhaps it is time we get down to deep thinking about how to live and not what to have. But, while we are doing it, let's continue with our bees. They are closer to God than we are.



## PACKAGE BEES AND QUEENS

Booking orders for 1953.  
Prices on request.

**E. J. Bordelon Apiaries**

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### CAUCASIANS CARNIOLANS

Am located now in  
SOUTH Florida. Bees  
get pollen and some  
nectar all the winter months. Queens  
by March 1st. Glad to have your in-  
quiries for **EARLY** queens.

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Write for Prices

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We pay you the best prices for  
quality honey and beeswax.

Send for our new 1953 catalog.

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**HIVE BODIES and  
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With a **JOHNSON DOVE-  
TAILING MACHINE** in  
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making new or repairing old  
equipment, these machines  
are of untold value to bee-  
keepers. Profit-minded bee-  
keepers everywhere are  
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to cut down expenses. Why  
not investigate? We guar-  
antee results. Write for cir-  
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## QUEENS — WE PRODUCE TWO QUALITY STRAINS



**JOHN DAVIS ITALIANS—DADANT'S STARLINE HYBRIDS**

Now booking orders for 1953 season. Slight change in prices  
but will be in line with other breeders. Price schedule in  
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dates.



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Pat. Off.

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### YOUR AIM

1. Baby Bees.
2. Queens with breeding that produce.
3. Prompt Shipment.
4. A guarantee you can depend on.

	Queens
1-10	\$ 1.20
11-50	1.10
51-over	1.00

### OUR AIM

1. We have our hives in shape to pro-  
duce bees.
2. Three-banded Italian queens. Pro-  
lific.
3. A package that will produce.
4. Live delivery guaranteed.

2 lbs. with queens	3 lbs. with queens
\$3.20	\$4.30
3.10	4.15
3.00	4.00

**F. R. SAWYER**

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### There Is No Substitute for Quality

Better crops result from good bees properly managed. The  
know-how of thirty years producing the best goes into each  
package and queen.

Reg. U.S.  
Pat. Off.

**STARLINE HYBRIDS**

Write for prices

**REGULAR STOCK**

**J. M. CUTTS & SONS**

Box 336

Chipley, Florida

### EARLY ORDER DISCOUNT

Please write for our prices on 3-  
banded Italian queens and package  
bees.

**W. E. PLANT**

Hattiesburg, Et. 2, Miss.

### BEES and QUEENS

Send for **FREE** Circulars

Booking orders now.

Over 30 years a shipper.

**Blue Bonnet Apiaries**

Weslaco, Texas

### BEE SUPPLIES

**A. H. Rusch & Son Co.**

MANUFACTURERS—JOBBER  
REEDSVILLE, WISCONSIN

### Packages Bees and Queens

Prices ready about Jan. 1, '53. Our  
Mott Strain, Bright Three-banded  
Italians. We wish everyone a suc-  
cessful new year.

**TAYLOR APIARIES**

Box 240

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### Modern Beekeeping

If you are taking time to read, why  
not read the best?

Condensed to save you time.  
Illustrated to give you pleasure.

1 yr. \$1.50; 3 yrs. \$2.50; 5 yrs. \$3.25  
**MODERN BEEKEEPING**  
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### New Address

**Caucasians Unlimited**

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### QUEENS — PACKAGE BEES FOR 1953

Maximum production is most easily  
assured with superior bees and  
queens. That's one way we try to  
help you make money. Superior bees  
and queens is our motto at all times.

**THE VICTOR APIARIES**  
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### ROOT BEE SUPPLIES HONEY PRODUCER AND PACKER'S SUPPLIES

**Michigan Bee & Farm Supply**  
Box 7, 510 N. Cedar, Lansing, Michigan

### FOSTER APIARIES

**Blue Ribbon  
PACKAGE BEES  
and  
QUEENS**

P.O. Box 239, Colusa, Calif.



The three pictures on this page show honey displays which were a part of the October campaign. Throughout the country, displays like these helped boost honey sales.

At left is a booth at the Oklahoma Retail Grocers' Convention October 5-9, 1952. This was a feature of the Plentiful Foods exhibit of the FMA.

Here is a New York City window display featuring honey as a delicacy. Notice the emphasis on different uses of honey and its health value.



This display was used in Master Super Markets in Kensington, Maryland. Standing by the display is Julius Rosenburg, store manager. Displays like this should bring honey before the public eye at all times. In too many stores it is still found on a back shelf.

# Results of the 1952 Honey Promotion

by Roy A. Grout

If one could have mounted a magic carpet and traveled everywhere during October, 1952, and visited every place at the same time, only then would one have been able to fully tell what took place and what the results have been. From a packer standpoint, results still are being realized, so it is not possible to seek the answer there at this time. Packers, moreover, as well as their sales outlets, are often reluctant to give their results because of competitive reasons. Results of surveys of retail outlets, producers and officials of beedom still are incomplete, and doubtless the whole story will never be told. Certainly no single story in one issue of a bee journal could tell it fully.

But from the large amount of material which is available, the many people to whom we have talked, and many other sources, it can be truly said that the October honey promotion, which climaxed with National Honey Week, was a great success—the finest thing that has ever happened to the bee and honey industry.

Early in December, a representative group from the industry was privileged to hear G. Chester Freeman, head of the Food Trades Division, Food Distribution Branch, P. M.A., U.S.D.A.—the man who directed the Government's part in the October promotion, tell of their results and how the honey industry had cooperated in the program. He presented to the group an extensive and marvelous display of selected material consisting of more than 350 exhibits. These showed how the industry had functioned; how food brokers had taken part; how food trade publications used cover pictures and feature stories; how the food wholesalers and manufacturers got behind the promotion; how chain stores and their associations cooperated; how the baking industry and the restaurant trade functioned; how food editors of newspapers across the country featured honey and recipes; and many, many other individuals and groups.

Those present in Washington were pleased and amazed. Although words were inadequate, they expressed

their sincere appreciation for the 1952 October promotion, and unanimously requested promotional help in 1953 on whatever scale could be justified. They were swept away with the enthusiasm for honey promotion which was evidenced by representatives of the Food Distribution Branch and the Fruit and Vegetable Branch of P.M.A.

The two groups which cooperated with them on the national level, according to Mr. Freeman, were the American Honey Institute and the American Beekeeping Federation.

He stated that the honey industry was very fortunate to have the Institute which already had established two events during a year around which to build a honey promotional program—National Honey Week and Honey for Breakfast Week. His praise of Institute work and promotional material was high, and he stated that they had found Institute relationship with food editors and home economists to be excellent. He thought one of the weakest points in the 1952 campaign had been lack of free point-of-sale material and recommended that funds be made available by the industry for this purpose.

Mr. Freeman was complimentary of the work of the Marketing Committee of the Federation, and pointed out that it was necessary to have such a group to work with and to serve as a liaison between the national and the state level. He strongly urged the formation of **state operating marketing committees** which the Federation has been attempting to establish, pointing out that only people on the state level are in position to obtain the cooperation of state extension people, their marketing officials and others, and to obtain free publicity through press, radio and T.V. He thought our immediate job was to **organize more effectively in the best practical way**—that through organization we would be able ultimately to solve our own honey marketing problem.

So it is apparent, as one of the results of the October promotion

during 1952, that the honey industry needs to do more for itself. We must expand and improve our marketing and promotional program for honey. This we resolve to do. Doubtless it will mean a series of conferences with organizations and groups including the Federation, the Institute, honey packers, bee breeders and others. It will take constructive thinking and planning, and mostly it will take support. This support must be moral, physical and financial. More funds are needed; more work by many more individuals throughout the industry is a necessity.

Did the 1952 honey promotion increase sales of honey? It already has been stated that we do not yet have the entire story. But an early survey of everything available to us shows that it did increase sales of honey in spite of an unseasonably warm October and, as one packer stated, in spite of higher prices on grocers' shelves. Practically all who replied from the state level reported increased sales. Honey packers who cooperated in the promotion (packers generally did an outstanding job and are to be complimented) also reported sales increases, and some pointed out that the results could not be determined until after the first of the year. But there were some large packers who reported that sales were no better than in 1951.

It thus accrues that the story of the results of the 1952 promotion cannot be told fully as yet; nor can it be told in this short article. From issue to issue, as a part of the industry honey marketing program, the American Bee Journal will give you further information throughout 1953. It is a wonderful and informative story which we want to make known as an inspiration to many throughout the country to get busy and establish effective marketing programs at the state level and down through county groups to individual honey producers. For this is the greatest single problem of the honey industry—to establish for ourselves an adequate promotional and marketing program for honey.





A twin colony hive used with artificial heat on an experimental basis. This hive is the design of E. L. Sechrist and the heat unit of the long wave type is underneath.

# Colony Size in relation to Honey Production

by Philip M. Heggen

**W**HEN one is engaged in the business of honey production, the importance of colony size should be fully appreciated. Langstroth once said that putting a swarm into a small hive or limited space is like hitching a strong horse to a toy cart. During my eight years of studying bees I have come to see the full significance of his statement.

It has been shown by Dr. C. L. Farrar that a large colony has a greater percentage of field bees than a small colony. This is an important factor in the honey storing capacity of a colony, and can only result in greater honey production.

Besides this great advantage it has been shown many times that a big colony will winter much better than a small one, especially in cold weather. The reason for this is in their comparative heat loss. The larger the cluster, the smaller is its surface in proportion to its volume. Therefore, a large cluster loses a smaller part of its heat and consequently less honey per pound of bees is used. A lower rate of activity is allowed in the large cluster because of this. As a bees' system cannot replace its worn out tissue, activity for them has a direct bearing on their lifespan. From the practical standpoint then, bees in a large colony will emerge in the spring younger than those in a small colony.

Now comes spring. The queen in the large colony can rapidly increase her egg laying as there are plenty of bees to keep the brood warm.

Because of this the large colony can rapidly increase in size and store surplus on honeyflows which are too early for smaller colonies to take advantage of.

So, we see, the whole year around it is the populous hive which takes the lead in efficiency. All of these advantages were gained when bees first became gregarious; what is important to us is that they increase directly with colony size.

Realizing the importance of this subject we might review the main points which limit the size of our colonies. It is apparent that there are other limitations besides hive space. An insufficient store of honey will tend to decrease the egg-laying rate of the queen. Pollen reserves are essential in raising brood and lack of these have a similar effect on the queen's egg laying. The amount of good brood comb provided for the queen is very important. The main idea of Dadant, Quinby and others in advocating a larger hive was to provide the queen with adequate space for unrestricted egg laying. Insufficient brood comb not only restricts hive population but eventually causes swarming. Finally, the queen herself must be from a superior strain which is outstanding in all characteristics regarded as important by our best bee breeders. The value of good stock cannot be overemphasized; one might even say that success depends on it.

In recent years the two-queen system of management has received

considerable attention. It offers the obvious advantage of a much larger colony by using two queens per colony during the summer. This doubling of colony size, however, results in skyscraper hives which are hard to handle. This problem has been greatly reduced by two different methods.

A more compact hive has been proposed by Dr. C. L. Farrar using a twelve-frame hive body of the shallow type which would permit easy handling. The shallow frames also facilitate earlier removal of honey and thus limit hive height. By manipulating supers, this system promises to eliminate a lot of frame handling.

The long-idea hive has been developed into a very practical unit for the two-queen system by E. L. Sechrist and others. This design offers direct access to the brood chambers which are on each side of the hive. Because of this, field bees are not forced to go through the brood chamber every time they enter and leave the hive. Eliminating congestion becomes important in hives containing over twenty pounds of bees as it is a major cause of swarming.

These and other developments of the two-queen system promise a wider use of this method of management in the future, and through it a better understanding of the real potential of the bee colony will undoubtedly be realized.

Texas



# How to Sell Pollination Service



by  
Milton H. Stricker



Top—Strong colonies make contented customers.

Center—A load of bees screened and ready to go.

Left—A well kept truck is a good advertisement.

**T**HE most difficult thing about the pollination business is getting the customers, especially those first customers when your business is new. The only bright spot is the fact that as time goes on and you become known as a provider of excellent service, the customers will come more easily. In fact, you will be unable to keep new business away if you provide an unexcelled pollination service.

There is very little point in trying to rent your bees or even establish a pollination company if you aren't an extrovert. If you don't like to meet new people, or talk to people, hire a salesman to do this for you. Here is a hitch because you must have a salesman who knows enough about bees to be able to talk intelligently about pollination. He must be as sold on bees for pollination as you are.

Suppose you pass this first hurdle and are ready to rent bees. Either you or your salesman should go to the County Agent or a corresponding government agency. With the current trend of bureaucracy, there will surely be some agricultural agent for you to contact. Ask him for the name or names of growers of the crops in which you are interested. If possible, get the names of those farmers who do not rent bees. Go to these gentlemen first; talk to them; tell them what you have to offer and the price at which you offer it. Don't waste their time in their busy seasons. Too much sales talk has lost many more orders than too little.

Join the organizations. Almost every commodity group has an organization. Your experiment station can tell you the name of the organization in which you are interested.

Visit the secretary, pay your dues and go to their meetings and banquets. Here is where extrovert tendencies pay off. You've got to go places and see people to get customers. A beginner should remember that he has to see a hundred people before he is likely to get one customer.

If you go to see people who are already renting bees for their crops, and I am emphatically against this for all beginners, quote the current standard price and stick to it. Price cutting is the first fatal mistake the business starter can make. It cheapens his product and puts him at the disadvantage of being forced to future price cuts to hold his business. Price cutting can only be used successfully by the large operator who has learned to cut costs.

Of the farmers who already rent bees, there are only three who will

change over to a beginner in the pollination business. First, a friend or relative might give you a break. You, yourself, know the chances there. Next, a man who is dissatisfied with his present service, but the odds are against your getting this order, because the dissatisfied usually have picked a second service before you arrive. The third type is the habitual "cheap John" who is constantly shopping for cheaper prices and if you do land his order, he will leave you for someone cheaper, or expect you to cut your prices to hold his business. He is the one the other pollinators avoid because they know him for what he is—hard to service, demanding extra service and is usually a poor payer.

Advertisements in newspapers printed in farm areas will help. Your own brightly painted truck will provide good advertisement.

Giving talks at service clubs in farming areas will be a help. At these you don't have to ply pollination. Give them the observation hive type of speech with all the clichés, such as, "a drone has no

father, but it has a grandfather on its mother's side."

The bee speaker, if he brings his bees or a motion picture about bees, is always welcome, so contact the local club and tell them you can make the speech. It will cost you nothing but the time, and will probably bring you orders.

Your local GI Agricultural Night School is a wonderful place to bring this speech directly to the young farmers who have the interest and inclination that your prospective service needs.

Giving free hives is a poor practice since the recipient often feels that since he didn't pay for them, they aren't worth anything. However, you can make an introductory offer, a few extra hives thrown in with so many rented. But, make the understanding clear that this is only a first year proposition.

Probably the most important words of this article will be missed, so to repeat, stick to a standard price and forget about price cutting. It is ironical that the very custom-

ers whom you think you are helping, will have little respect for you and your product if you so cheapen it.

Today there is a great trend of renting bees on a contract that shares the crop. This arrangement is ideal in theory, but there are far too many variables, so avoid it if at all possible. Though the bee journals are full of contract thoughts, and people telling how to keep from being outsmarted in such a deal, remember that in a few short years, the bee magazines will be just as full of the sharp practices that lead to the decline of this type of bee renting.

Share-the-wealth pollination was tried in this section years ago when pollination was in its first infancy, and was discarded in favor of the straight pay-as-you-go basis.

Advertising, your personal selling, your undivided attention to your business, the offering of a quality service on a good sound basis, will result in the establishment of your first customers, and a respected business of your own.

New Jersey

## The Beekeeping Industry Research Foundation

### Possible Functions of the Foundation:—

#### Information

(a) Secure and maintain as complete a library of information regarding the industry as is possible for the purpose of making such information available to all.

(b) Exchange information freely with all other agencies outside the industry where such cooperation might lead to mutual advantage.

#### Research

(a) Extensive study of honey from a nutritional standpoint.

(b) Investigation of honey, and/or elements within honey as they may apply to physical ailments.

(c) Investigation of the value or lack of value of pollen contained in honey.

(d) Investigation on the control of laxative qualities of honey.

(e) Investigation of new types of equipment now available or that might be developed for our use.

(1) Faster methods of extracting honey.

(2) The application of electronics as a possible method of controlling

yeasts in honey, and also of dissolving crystals.

(3) The control of diseases by application of electronics to both combs and honey.

(f) Investigation on the possible use of honey with other food products:

(1) The University of California suggests the following possibilities: Use in breakfast cereals; In cake, cookie, biscuit and other premixed flours supplied in puffed bags separate from the flours; In candies; In making table syrups; particularly from raisins and grapes; Juices and concentrates, particularly the frozen; In ice cream and other frozen desserts; In wines—chiefly grape wines.

(g) Investigate the possibilities of isolating levulose in honey for both medical and commercial purposes.

#### Accomplishments of the Foundation to date:

Secured a fairly comprehensive response from the scientific field regarding a nutritional study of honey.

Secured a fair amount of data already available on various phases of nutritional work.

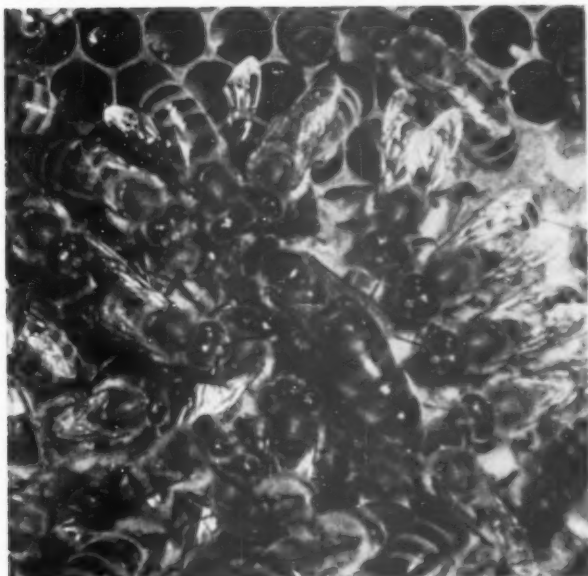
Contacted Dr. Alfred Vignec, Director of the New York Foundling Home, regarding the addition of technical work to the clinical study now under way there with 200 infants receiving honey as compared to a similar number of infants not receiving honey in their diet. This project is now in the process of development. This study is scheduled to run for one year.

Interested the Westinghouse Electric Corporation in doing work in their laboratories on the possible use of ultra-violet rays for the control of bee diseases.

Made preliminary investigation on the possible use of honey in combination with other foods.

Made arrangements for one of our Directors to confer with Dr. Eva Crane of the Bee Research Foundation of England this summer.

Arranged to place one of our Directors on the Home Economics committee of the National Association of Radio Farm Directors. This will make it possible to secure publicity for honey through the medium of radio and television.



# Genetics and the Honey Bee

by G. H. Cale, Jr.

(A partial review of an article entitled "Gregor Mendel and His Precursors," written by Conway Zirkle—Univ. of Pa.—and appearing in Vol. 42, Part 2, No. 128, of *ISIS*, a magazine of international review devoted to the history of science and civilization.)

**I**N 1865, Gregor Mendel (1) published the results of his scientific investigations of the laws of heredity. An incredulous and unbelieving scientific world paid little attention to Mendel's work and it remained forgotten for many years. It was not until the year 1900 that Mendel's work was rediscovered and the science of heredity—genetics—was established.

Mr. Zirkle, in the article mentioned above, has pointed out some of the work done by Johann Dzierzon; the-

ologian and bee breeder. As a bee breeder Dzierzon proved the worth of the hive with movable frames; he further discovered the fact of parthenogenesis of the honey bee in which the females (queen and workers) are produced from fertilized eggs, but the males (drones) develop from unfertilized eggs.

Dzierzon (2) made crosses between pure Italian bees and the black bees of Germany and noted the segregation of drones that resulted from a queen of this cross. Dzierzon wrote of this, as follows: "... she produces half Italian and half German drones, but strangely enough, not according to the type (not a half-and-half intermediate type) but according to number, as if it were difficult for nature to fuse both species into a middle race."

In Mendel's day, however, these

facts (the 1:1 ratio of drones from hybrid queens) were either unknown or unaccepted, and Dzierzon's theory was still unproved. Many students of Mendel's life feel, however, that he was well aware of the writings and work of his fellow cleric—Dzierzon. Certain it is that Mendel himself used the honey bee in his studies of heredity. Mendel's own experiments were so much more extensive and exact than any which were done previously, however, that he deserves full credit as the founder of the science of heredity.

Mendelism then, was the creation of an exacting scientific investigator who both hybridized plants and bred honey bees.

(1) Mendel, Gregor. *Versuche über Pflanzenhybriden*. Verh. naturf. Ver. in brunn 4: 1-47, 1865.

(2) Dzierzon, Johann. *Der Bienenfreund aus Schlesien*. Brieg. 1856.

## To Stir Granulated Honey . . .

A golf club makes a very acceptable 'spoon' for stirring granulated honey in 60 pound cans when it is being heated in hot water.

A No. 2 iron, (midiron) is about right. It can be inserted through the screw-cap opening and it will reach into every corner of the can.

## When Stacking 60's of Honey

Every lumber yard has scrap strips of Celotex left over from cutting large sheets to size for customers. According to John Holzberlein, of Colorado, these make excellent strips for placing between 60-pound cans of honey when stacked two or more high in storage.

## For Working Bees . . .

By using Air Wick or a similar product on the hands and face when working hives, I can get by without gloves or veil unless the bees are fighting mad. With this product on my face and hands, they will come at me but not sting me.

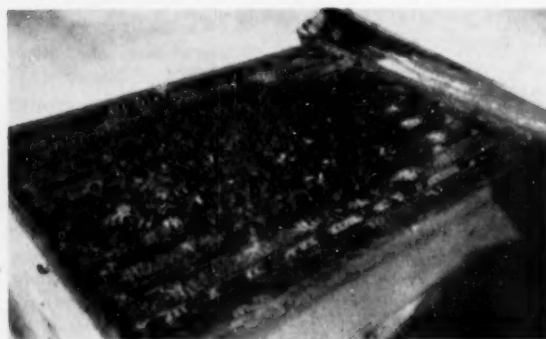
R. N. Crawford, Kansas



A group of "student beekeepers" who attended the Short Course in beekeeping given by the University and the Extension Service at Santa Ana College November 10-14. Fundamentals of bee management and bee behavior were main topics of discussion. J. E. Eckert, California



E. C. Bessonnet of Louisiana had this display in a Kress store window in New Orleans during October. His efforts to publicize honey also included two radio and one T-V appearance addresses to Home Demonstration Clubs, and newspaper advertising. Through his contacts with the Agricultural Extension Service, every home demonstration agent in the state demonstrated the use of honey.



Marvin W. Kossanke of Wisconsin sends us this picture of a good colony of bees inspected on February 1, 1952 when the temperature was over 40 degrees.

## Lespedeza . . .

The lespedeza seed crop, according to the U.S. Department of Agriculture, will approximate the small crop of last year, but will be 28 per cent below the 1941-50 average, with 125 million pounds.

These states rank in volume of seed crop production in the following order: Missouri, North Carolina, Tennessee, Kansas, and Kentucky.

## Birds That Eat Beeswax . . .

Some time ago Dr. Jehon Vellard, a French biologist, reported that the Guayaki Indians of Paraguay lived almost entirely on a diet of honey. Now Dr. S. Dillion Ripley II, a Yale-faculty ornithologist reports he has discovered a new bird that lives on beeswax. That's no help to a beekeeper, but it is further proof that beeswax is readily digestible.

While Dr. Ripley was 8,400 feet up on the Naga Hills along the Burma border in India, collecting birds for the Peabody Museum of Natural History in New Haven, he discovered the heretofore unknown honey guide and named it "*Indicator xanthonotus fulvus*." The Nagas call it *mephi tsu para* which means "the bird that eats bees." Actually instead of feeding on the bees, it lives off the wax from the bee nests. When the Nagas want honey they find bee nests by following the flight of the bird as it follows the bees laden with nectar and pollen.

There are two other species of the bird that were known before Dr. Ripley made his discovery. One is found on the Himalayas and the other in Malaya. In case anyone wants to set up beekeeping in the Naga territory, look out for a soft olive-gray bird with a brilliant orange rump and orange feathers around the bill; it's a wax eater.

Earl Seidlinger, Wisconsin

## Beekeeping Statistics . . .

There are 84,481 beekeepers in England with 443,146 colonies of bees, or an average of a little over 5 colonies each. In Wales 7,248 beekeepers have 34,841 colonies or just under an average of 5 each.

## A Cold Prospect . . .

If you're one of those farmers who believe the severe weather of the past two winters was just a temporary phenomenon, you may be due for a surprise, according to an analysis of long-range weather cycles made by the Weather Science Foundation.

Dr. Raymond H. Wheeler of the foundation recently predicted that we can expect severe winters with an extra measure of snow and ice for the next 50 years.

He explains that the past 50 years have been relatively mild. Now the weather cycle is moving back toward the type of winters that grandfather likes to reminisce about—when red flannels were the standard undergarment from fall to late spring. We'll reach a 100-year low sometime in the late 1960s, Dr. Wheeler predicts.



## Abandoned Apiary Law Enforced

November 7th, 1952 marked the final chapter in an abandoned apiary situation which has existed in Goodhue County for a lengthy period of time. Mr. C. D. Floyd, acting for the State of Minnesota, confiscated and sold at public auction a number of outyards comprised of bees and bee equipment which were abandoned and neglected by the owner.

Much diseased equipment and bees were also destroyed prior to the sale and this should serve as a pattern to work with in other sections of the state where abandoned or neglected apiaries are found. Inspectors Paul Asher and Emma Schmidt; Deputy Sheriff Paul Zillgitt; Secretary of Minnesota Beekeeper's Assn. Robert Banker; State Entomologist T. L. Aamodt; and State Representative Clarence G. Langley were among those present at the proceedings.

Goodhue County beekeepers should find this a big aid in disease control and should compliment Representative C. G. Langley for sponsoring the legislation which made this action possible.

E. F. Bea, Minnesota

## British Columbia Honey Regulations

The province of British Columbia recently issued "Regulations Governing Honey." These include interpretation of the Honey Act. Classes and grades for honey, together with tolerances and specifications, are included. Tank lot and smaller package markings are stipulated, together with fees applicable for proper permits.

Copies are available from the Minister of Agriculture at Victoria, B.C.

## Notes of Interest . . .

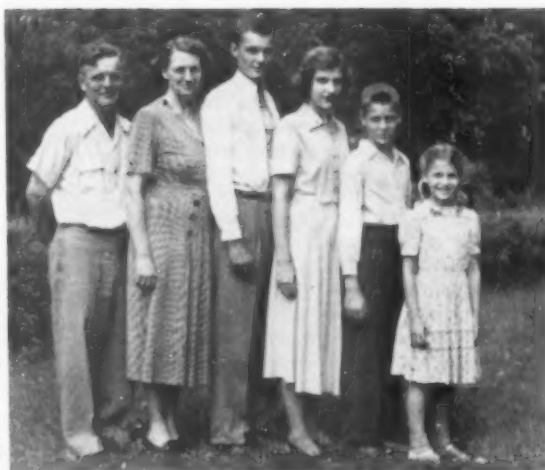
A British correspondent reports raising 92 natural queen cells in one hive. Can anyone give us a larger number? We have always assumed that the Cyprian stock held the top rank in queen cell rearing. In fact, Dr. C. C. Miller reported in the August 31, 1905 American Bee Journal that a Cyprian queen, imported by Frank Benton and sent to Miller, had reared 119 queen cells all at one sitting. Two frames containing these cells appeared on the front cover of the August 3, 1905 issue of that magazine.

According to the Langstroth-Dadant 1927 edition of the "Hive and the Honeybee," D. A. Jones, of Canada, then editor of the Canadian Bee Journal, had exhibited in 1883 a comb with 80 queen cells. In that case the colony was headed by a Syrian queen.

Dr. C. G. Butler, of the Rothamsted Station in England, author of "The Honeybee," has gone to Ceylon to advise that government in beekeeping.

Honey mead making seems to be on the upgrade in the British Isles. The 1953 coronation year should be a good one to advertise and popularize that ancient drink. Strange that no one in this country where both soft and spirituous drinks are so popular has introduced honey mead and metheglin. Its making and sale should be remunerative.

January, 1953



Melvin Pellett, Director of the Honey Plant Test Gardens, at Atlantic, Iowa, with Mrs. Pellett and their four children. Looks like ma and pa better start in on more buttermilk or all four kids will be looking down on their parents.



Charley Moosman of Nebraska, one of the "Spotlight" writers this month, says they don't often have a snow storm in May but the above picture shows what happened in May 1950. This was taken on May 12 when the hives were dug out after a blizzard that buried the bee yard.



The bee house, on Kelley's Island, sent in by Alfred Bergstu. Here some of the most important work in bee breeding is being done by government experts. Many are now interested in a bee of the future that may far surpass the bee we have today.

## The 1953 Journal . . .

This is the first issue of the new volume of American Bee Journal for the present year. We hope you like it. The "Round-ups" last year gained space as time passed until they were stealing the show and we had little room for much else. The "Spot-lights" of 1953 will demand less space and so leave room for more general material. Also you will see that there are more short items provided so we can give you in "pill" form things to help you or things you should know about.

So many readers have sent in pictures that there is one entire page after the Spotlight for pictures and two half pages in front. Now we believe that you will get more reading than ever before and surely more "looking." Time is so short these days that only those things you can grab as you pass get through to the mind in the busy whirl of the day. Answers to your questions will still be under the direction of Frank McLaughlin without any department status. Let us know how the new plan appeals to you. Glad to get your suggestions.

## Trend in Honey Prices . . .

The Australian Bee Journal for October, 1952 gives report of the 1951 crop of honey handled by the Control Board on Honey Marketing in South Australia. This refers particularly to the Province of South Australia. The report is prepared by Mr. A. L. Eastley.

Prices obtained for the producer were approximately 9 cents a pound with an allowance of 33 cents for the 5-gallon container. This was about ½ cent per pound more than was realizable outside the Control Marketing group.

Retail prices during that time were approximately for 1-pound liquid—24 cents, 2-pound glass—44 cents, 1-pound candied—22 cents.

Under certain provisions beekeepers acting under the control may make retail sales locally providing they do not cut under the standard rate.

Naturally, before the 9 cents per pound is distributed to the producer together with the allowance for tin, there has to be provision made for administration and for advertising. This means that the realized price on the honey is considerably in excess of the 9 cents a pound which

## Frosted Honey Prune Bars . . .

- 2 cups cooked prunes
- ¾ cup shortening (part butter or margarine)
- ½ cup granulated sugar
- ½ cup honey
- 1 teaspoon grated lemon rind
- 1 egg
- 2 cups sifted all-purpose flour
- 1½ teaspoons baking powder
- 1 teaspoon salt
- ¼ teaspoon soda
- ½ cup milk
- 1 cup chopped walnuts

Pit prunes and chop. Cream shortening, sugar and honey together thoroughly. Blend in lemon rind and egg. Sift together flour, baking powder, salt and soda. Blend into creamed mixture alternately with milk. Fold in prunes and walnuts. Turn into greased pan 9x13 inches. Bake in moderate oven (350 degrees F.) about 35 minutes. Cool thoroughly. Spread with lemon frosting and cut into bars. Decorate as desired. Makes about 30 bars (1½x2½ inches).

### Lemon Frosting

- 3 tablespoons butter or margarine
  - 1½ cups sifted confectioners' sugar
  - 1 tablespoon lemon juice
  - ½ teaspoon grated lemon rind
  - 2 tablespoons cream or milk
- Cream butter and blend in sugar alternately with lemon juice, rind and cream.

American Honey Institute

## Lebkuchen . . .

- 4 cups sifted cake flour
  - ¼ teaspoon soda
  - ¾ teaspoon cinnamon
  - ¼ teaspoon cloves
  - ½ teaspoon nutmeg
  - ¾ cup strained honey (½ pound)
  - ½ cup brown sugar, firmly packed
  - 2 tablespoons water
  - 1 egg, slightly beaten
  - ¾ cup (3 ounces) shredded candied orange peel
  - ¾ cup (3 ounces) shredded candied citron
  - 1 cup almonds, blanched and shredded
- Sift flour once, measure, add soda and spices, and sift together three times. Combine honey, sugar, and water and boil 5 minutes. Cool. Add flour, egg, fruits and nuts, press dough into a cake, wrap in waxed paper, and store in refrigerator 2 or 3 days to ripen.
- Roll ¼-inch thick on lightly floured board. Cut in 1x3-inch strips. Bake on greased baking sheet in moderate oven (350 degrees F.) 15 minutes. When cool spread with Transparent Glaze. Store at least one day before serving. Makes about 5 dozen cookies.

To make Transparent Glaze, combine 1 cup sifted confectioners' sugar and 1½ tablespoons boiling water. Add ¼ teaspoon vanilla. Beat thoroughly. Spread on Lebkuchen while Glaze is still warm.

Note: These cookies are characteristically hard and chewy. They develop a better flavor upon storage. Store two weeks or longer.

American Honey Institute

the beekeeper gets.

Approximately one shilling per tin is set aside for advertising, both in the country and overseas. This means about ¼ cent per pound.

Such a plan operating in the United States on even a comparatively small percentage of the more than 200 million pounds produced would realize a sum which most certainly would help dispose of our honey production each year.

## Panel Discussions . . .

At the Nebraska Annual, Lincoln, November 13th, President Ellsworth Adey had provided only two main talks on his program, depending for the balance on particular subjects led by panels of Nebraska leaders called impromptu from the floor. Few of those at this meeting went to sleep. For a live-wire meeting this plan is excellent.

Nebraska became the second state, following Texas' lead, to subscribe a substantial sum in escrow for the support of an all-over United States Beekeeping Council, following the plan used so successfully in Canada. Under this plan all sections of the industry would make up the council, the Institute, the Federation, Research Foundation, supply manufacturers, bee breeders, packers, state and local associations.

## One Bee Inspector's Experience

Some of the compensations of a bee inspector are the situations he encounters. Here is an example.

After examining the small apiary on a fruit farm, the owner asked if the bees in the tree were to be examined. Now it is not uncommon to meet a beekeeper who is not willing to have his bees overhauled to ask how bees in the trees are to be inspected inferring that unless they are, he sees no reason for his being inspected.

Looking at the orchardist, there seems nothing in his face to lead me to think he was trying to "stall" so I said, "I should see all the bees while here." He then said, "If you want to see the bees in the tree, I will have to get the key." He went into the house and came out with a key and directed me down into the orchard. We came to an apple tree enclosed with screen wire and a locked gate, and inside was a hive of bees.

This tree was a yellow delicious apple tree and one branch on the tree bore red apples. A large nursery company had bought the right to propagate the red delicious and had insisted on the tree being wire enclosed to prevent anyone removing grafts. A colony of bees was placed inside the screened fence to insure pollination.

Elmer G. Carr,  
New Jersey.

**January**

# SPOTLIGHT



**Locations**

# Today's Outapiary

by M. G. Dadant



**F**OR the smaller beekeeper, or amateur, the selection of a site has not much elasticity. Either he uses his own city backlot or porch roof, or perhaps has access at driving distance to a friend's acreage or pasture where the terrain may be better and still the distance not so great as to make his apiary inspections a chore instead of the pleasure he had anticipated.

For either the smaller beekeeper or the larger one there are, of course, the standard considerations; a nice, easily accessible place with not too much shade; bees so placed as to have ample room for working with them; line of flight arranged so that neighboring stock or passing pedestrians may not be annoyed by flying and possibly angry bees; bees facing away from the prevailing winds and well protected by fence or line of woods or shrubs. If pos-

sible, the apiary location should be well drained by being placed on the side of a hill, or the hives raised to obviate the possibilities of damp conditions of the backlot. Dampness in the cool weather cluster is probably one of the biggest factors in winter loss.

Naturally when the location is away from home, some consideration will have to be made as to its availability in all kinds of weather, as well as some means of protection from the marauder, either animals or man-made maliciousness; near a house is probably best. Earlier, the possibilities of having spring swarms caught entered into the picture; but with large single-story or two-tiered hives, as well as young queens and other nonswarming considerations, this does not seem to be such a factor today.

In starting outapiaries, it is well

to have in mind such factors as previously recommended in this article: drainage, wind protection, partial shade, and protection from marauders.

But in commercial honey production, the main factor must be nectar availability and subsequent surplus yield. It would seem that all one need do is to locate vast fields of nectar producing plants and act accordingly. However, the solution is not as easy as that. Nor can the procedure be made standard for every locality.

R. O. B. Manley, in his book "Honey Farming," relates a visit to A. W. Gale, another one of England's largest beekeepers. It had to do with the location of a 30 to 40 colony apiary of Gale's, which seemed apparently to be in a location with little in volume of major honey plants. Yet Gale stated that this apiary was one of his best in surplus honey yield; probably due to continuous bloom, and good buildup for the bees as well as winter stores insurance. Had Mr. Gale doubled his number of colonies no doubt the results would have been different.

There have undoubtedly been locations where the nectar supply was so plentiful as to make it seem that overstocking was impossible. Yet we wonder if E. W. Alexander in New York in the early days with 700 colonies in one location might not have fared better with fewer colonies, better spaced over the countryside. A recent report from apparent bonanza locations in the Peace River section of British Columbia gives the average yield per colony of a 468

Where natural windbreaks are unavailable, slatted fences on the windward side are effective.







Generally, nectar results vary inversely with the distance from the source of nectar. These colonies are placed directly in the field to be pollinated.

colony apiary as 110 pounds in 1952. Amazing. Yet in the same report is a 250-pound average for an apiary of 60 colonies. Perhaps more careful attention was paid to the smaller group; but overstocking could have been the reason for the lower average, fine as it was.

With modern means of transportation, moves mean less than in earlier days when a wagon and team was the only means of short distance moving. Nowadays, one may avoid the lack of build-up in an otherwise good main crop location by having the bees in broken country where early willow and other plants are available, then moving to the main crop just as it opens. This is what Ira D. Bartlett did years ago in Northern Michigan. He probably still does it. He builds his colonies in good build-up territory near home, then moves to the crop when the main flow starts. But every move is an item of expense and one may often wonder whether the outapiary system of 30-colony yards in a fair territory may not in the end yield as much as a much better average crop where one or more moves have to be made, especially if at long distances.

A consideration which probably has not had the attention that it deserves is the matter of placing the colonies as near as possible to the nectar and pollen to be secured. C. R. Ribbands, of the Rothamsted Experimental Station in Britain, writing in the *Bee World* for January, gives some results of carefully conducted experiments on the effect of distance to forage on the resultant honey harvest. He points out that such results are necessarily variable on account of the weather influence. But his averages indicate

that increase in distance is consistently associated with decrease in colony foraging.

While decrease in gains on heather was only 15 per cent at  $\frac{3}{4}$  mile as compared to immediate contiguity to the crop, the loss was much greater with apple bloom when only  $\frac{3}{4}$  of a mile away. A foraging distance of  $\frac{3}{4}$  mile gave an average reduction of crop of 32 per cent in the good honey year of 1949. On the other hand, the reduction was 83 per cent at the same distance in the poorer year of 1950. Not surprising that for pollination the standard practice is to place the bees in the middle of the area to be pollinated.

While it may be true that the superior crop territory may compensate for lack of early build-up and may reward even long moves to the fields of bloom, moving to such locations should be considered carefully.

Surely a study of the soil maps

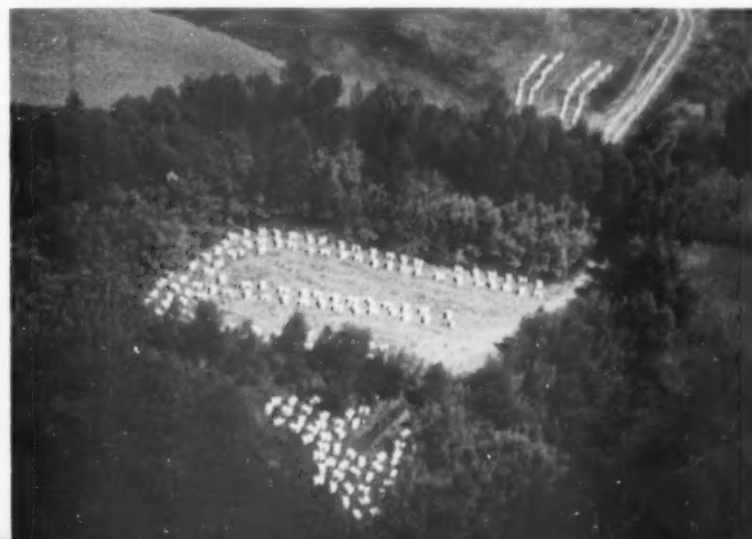
and topography maps in those territories having them available, as well as a personal trip over any proposed location, is imperative. Often even some smaller beekeepers of the area may give a hint as to the possibility of the location, and surely they will indicate the probabilities of encountering disease.

Not seldom is the commercial airplane called into service. An hour's ride at low altitude over a locality might often disclose desirable fields of later bloom which might take much longer to find by car and road. And pin-point location is of vital importance as pointed out by the Ribband experiments.

While I mentioned earlier the value of soil maps, our knowledge of influence of soils on nectar secretion is still very vague. Apparently buckwheat yields best on sandy, light soils, while cotton honey crops are usually best on the richer, dark lands. But our scientists as yet have delved little into the influence of soil content on nectar and pollen yield, and especially under varying weather and moisture conditions. It is a rich field and might have repercussions on general agriculture as well.

In our own clover regions it seems conclusive that territories which used to yield white clover crops four years out of five, now yield only one or two years in five. Evidently, our top soils have lost some of the elements desirable for the best nectar secretion. Yet they seemingly are made available when weather conditions are at their optimum.

An aerial survey not only may locate competing locations but as readily find the location for taking advantage of fields with best nectar possibilities. (Shackelford apiary from the air)





# When Is a Bee Location Overstocked?

by John W. Holzberlein, Jr.

**M**UCH could be written on the above question as the choice of our locations and the number of colonies we run on them have a great deal to do with our success as commercial honey producers. It is true that a few colonies of bees may be kept satisfactorily most anywhere, but when the commercial production of honey is concerned, there are many factors to be considered. For this article we will consider only the factor of flora, beginning with what might be considered ideal and expanding to some that have proved quite satisfactory.

The ideal location for honey production would be one where there was a succession of pollen- and nectar-bearing plants, beginning early in the spring and culminating about eight weeks later in a good honeyflow from some plant yielding an abundance of nectar of desirable flavor and color. Following, there should be enough bloom to ensure a strong colony of young bees at the end of the season well provisioned with stored pollen and well-ripened honey. These locations are not plentiful.

Quite often we have to accept a second choice, usually settling on a location where the major flow is fairly consistent, and it then becomes the beekeeper's job to supplement nature in providing the conditions suitable to developing strong honey gathering colonies. Where the major flow is short and intense, the timing of this build-up is all im-

portant, for weak colonies may miss it altogether; while colonies at the production peak may store a satisfactory crop in as little as two weeks, before the weak colony has even brought off its first full cycle of brood. Unless feeding of pollen and honey is practiced, or abundant stores left with the colony, it is easy to overstock such a location at a critical period.

Quite often two peaks in flow occur with a period of dearth between. An example is the fruitbloom-dandelion flow which comes early in May and then is followed by the clover flow about a month later. This is one of the common situations and stocking for the build-up period may be just about right for the major flow in the midwestern diversified farming area. It is still the responsibility of the beekeeper to see that stores do not run low before the main flow begins.

Where one major flow is the rule with little chance for build-up, moving often proves profitable. Migratory beekeeping has been developed to take advantage of locations which are good for securing a crop, but are poor sources of early bee feed. Bees may be wintered and colonies built up in various locations suitable for the purpose and then concentrated near the fields that produce the cash crop of honey. This is just another way where modern man has played an assist to Nature and produced two pounds of honey where none was produced before. The ir-

rigated desert lands of the West are an example of this.

It is next to impossible to tell the number of colonies a location can support until it is tried, and one season will not always give the answer. It is better to err on the safe side and most of us do. Our own yards vary in size from 16 colonies to 60. Many of those with 60 could well be larger only we prefer not to have more in one place, preferring to have the locations closer together. We have many fringe locations, maybe only 10 miles from a good honey location with poor build-up possibilities. We build up colonies on the fringe and later move in between the permanent yards where spring conditions have held the number of colonies down.

There is little doubt that much more nectar goes to waste than is ever gathered and stored as honey. **IT IS ALMOST IMPOSSIBLE TO OVERSTOCK A LOCATION DURING A GOOD HONEYFLOW.** It is during the rest of the year that a location's carrying capacity is limited and it is for these times that we must figure our numbers. Let me give a few examples: In New York State, while getting some valuable experience, I once operated 400 colonies for a man who was seldom at home. But as I was new to the country he kept me guided as to what to expect. When I took over, his bees were all on their spring and early summer locations. However, he told me that at a certain date in



Both of these pictures are of one yard; the tall colonies had no EFB and made an average of over 300 pounds. The yard gets its first pollen from Indian turnip (local name for a member of the wild parsnip group) in early April and when the weather is favorable gets pollen from several other minor sources until May 1. Then dandelion takes over and is the mainstay during that month. In June, the wild milk vetch yields nectar and pollen, Indian paint brush yields pollen, red fallow yields pollen, and later the yellow sweet clover takes over. After the clovers and alfalfa cease to yield, usually in late August, we still have horehound and rabbit brush until frost or sometimes later. The tall colony I stand beside had 260 pounds surplus to remove ten days after the flow began. It was headed by two hybrid queens and made almost 500 pounds for the season.

July I was to get all the white honey off and get the whole 400 into two locations about a mile apart for the buckwheat flow. It sounded crazy to me, but I did it and sure enough we got better than 100 pounds to the colony from buckwheat.

A year ago last summer I visited a beekeeper friend in the Wind River Valley in Wyoming. His yards were only 2-3 miles apart and if I had not known his production record would have thought the territory overstocked. We went to the Park for a day and when we came back there were two large trucks from California systematically unloading a yard of bees between each of his. I expected him to "hit the ceiling." Although he didn't like it, his only remark was that if the flow, soon expected to begin, was normal they would scarcely be able to tell the difference.

A third example comes from Canada. A friend up there in that wonderful new country runs about 450 colonies as a sideline to farming. He starts them from 2-pound packages each spring and had been operating them in about 10 locations scattered as we'd expect them to be. But the bears gave him fits, they "worked" the yards oftener than the

beekeeper and were about to put him out of business. When I asked him what he did he said he just moved them all into his home yard, all 450 of them, and the bear trouble stopped. Oh, yes, the crop? About 160 pounds per colony, and he has been running them that way ever since. He says there are 900 acres of alfalfa left for seed within two miles of the yard, and since they are packages and provided with most of their build-up stores one can see how it would work.

Let us look at some figures: Unless you operate 2-queen colonies you rarely have over 60,000 bees in one hive at its peak. Only about one-third of these will be fielders at one time, or about 20,000. They will make an average of 10 trips on a good day, that is 200,000 trips per day for one colony. Owing to the varying amount of nectar in each floret and its sugar content it is difficult to estimate the number of florets visited on each trip, but if the flow were poor and the bee had to visit 1000 florets to get a load, only 20,000,000 florets could be visited once each in one day. When one considers that there are 65 billion florets of alfalfa or clover in one acre of a field of these crops in full bloom, he can see how utterly

impossible it is for one colony to get all the nectar available from one acre. And within a radius of two miles of an apiary there are 12½ square miles of land or 8,000 acres. From these figures one can compute the nectar producing potentials of a given territory. Of course there is no solid block of 8000 acres of one blooming crop that we ever heard of, but wouldn't it be something while it lasted?

Since a short haul is to be preferred, smaller yards strategically located near sources of several different honey plants will usually give better results. Although bees have been checked going 8 miles for nectar they will put more honey in the hive and more money in the beekeeper's pocket if they only have to go one mile to get their loads. Keep in mind the importance of the build-up period, stocking primarily for that, then if the territory will carry more colonies move in more of your own from less favorable locations for the major flow, or don't panic if someone else does.

And remember that more short crops are chargeable to the understocking of the hives with bees than to the overstocking of the location with hives.

Colorado

# Finding and Establishing Locations

by William W. Wicht



**W**HETHER we own one hive or a thousand, the first question that enters our mind is, where shall we place or locate the bees? To begin with, there are a few fundamentals we must keep in mind. We must put our bees where they will not be crowded by other people's bees; they must have protection from theft and the elements; they must not offend people or animals; and above all they must pay off.

Whether we keep bees for the purpose of producing honey or for pollination service, it is wrong from both a moral and business standpoint to place bees too close to the other fellow's bees. The best thing to do, if you find bees in the vicinity of the location you have chosen, is to find the owner, and between you, figure out how close you can place your bees to his apiary. Local conditions vary, but as a general rule, yards should not be closer than three or four miles apart for honey production. Another angle to this is the question of disease. If you are too close to an apiary which has disease, your bees may contract it and ruin you.

Bees should not be placed near homes or where people work. I do not know of anyone who likes to be stung, so if you are not careful, you may have to move out from a good location. Bees may be kept in town

if you will force them to fly overhead by means of fencing or hedges. I once kept bees in town for years with only a 10-foot hedge separating my bees from a play yard. Where yard space is at a premium, bees can even be placed on a roof top.

Before I enter into any dealings or leave my bees at anyone's farm, I inquire of his neighbors if he is an honest man and if he is, they will not hesitate to say so. If more than one is reluctant to say anything good of the man, you had better move on to another place. After obtaining a location, I try to place my outyards near the farm home of the people renting my bees, preferably where one has to drive by the house to get to the bees. If the owner wishes the bees to be placed away from the house, he is responsible for theft and, if you manage it properly, he will also furnish fire protection.

The number of colonies placed in outyards is strictly a local question depending on your pollination agreement or your source of nectar producing plants. If at all possible, the outyards should be on a route so that they can be worked without too much travel expense involved. Yards should be accessible by truck at all times. We like to streamline our yards so that we do not have to carry (or as we say it here, "tote") hives or equipment, and we can back

our truck up to almost every hive in our outyards. The hives are placed in rows but not usually straight and bees do not seem to drift. We prefer shade because we do not like to work in the hot sun. However, yards in the sun seem to do as well as those in partial shade and sometimes do better. Also, bees must have water and it is preferable to have clear running water within a quarter of a mile. The hives should be placed on well-drained ground, both for surface water and air. Hilly or rolling ground is ideal for bees from the point of sanitation. A good rain washes off a large portion of dead bees and other waste matters. This will help to a large extent to eliminate spring dwindling.

Outapiaries should also be protected from animals. Mules and horses will wander among the hives and in some instances have been stung to death by staying in the yard and fighting the bees, at the same time destroying equipment and bees. Cattle are awkward animals and will bump into and upset hives, and swine will ruin a yard by rooting around hives and upsetting them. Fowl do not seem to bother bees.

This writer is from the South and knows nothing about heavy snows excepting what he reads. However, we like a windbreak on the north side for our bees here in southern



Mississippi, with the entrances faced south or east. Due to the nature of bees, such a place is good anywhere in the United States.

Formerly I hunted locations by hiring a small airplane, looking for heavy wooded areas adjacent to

good farmland. But today, with pollination payments possible, I look for well-established farms which need pollination, with owners who can afford to pay rent for the bees or give a share of the seed, instead of me paying them as I used to do.

I still give them honey, but only for good will. I now make contacts through county agents, soil conservation people, seed dealers, seed cleaners and local firms that sell farm equipment.

Mississippi



Nine hives of bees placed in a tung oil orchard beside crimson clover. There were 100 colonies on this farm.



This picture shows 39 hives, part of 50 colonies placed in the sparse center of 30 acres of crimson clover. Another 50 colonies were placed on the other end of the same farm, which made the best yield of clover seed in that county. All colonies were run for package bees as well.



Note the populous colony shown here. This is the same place in the center of the field shown in the view at left. All of these hives were strong. I used these pictures in a display at a garden flower show last summer.

## - Multiple Brood Chambers -

Please explain the system of using two or three brood chambers with supers and reversing them at intervals. Do you ever extract from one of the brood chambers?

W. S. Woodward, England

We have used three standard ten-frame brood chambers for a single queen, reversing whenever the queen reaches the top story or when she reaches the second story and the third one becomes so crowded that it is no longer of any use to her for laying. Then we put the top on the

bottom, the bottom on the top, etc., as often as necessary, sometimes two or three times a year. This is common practice whether two or three brood chambers are used for the queen. Personally, I prefer two brood chambers with this so-called reversal system and instead of excluders on top we prefer shallow supers which in themselves usually impel the queen to remain in the two larger bodies below. Even if she does extend her brood into the bottom shallow, the force of honey

storage will eventually drive her down again.

These two bodies are examined for queen cells by tipping back the tops of the bodies and looking at the bottom of the brood combs for the appearance of new queen cells. We use the Demaree method to control swarming or remove the old queen and requeen the colony after all possibility of starting queen cells is past. Under this plan the queen is given the run of the two bodies perpetually. We never extract from the brood chamber.



by Charley W. Moosman

Charley Moosman beside the plane which he uses both for survey and for yard work.



## Serving Locations by Air

**T**HE old-timers of the beekeeping fraternity often tell of the trials and tribulations of keeping bees in the days of the horse and buggy. Outyards such as we have now, were unknown, and the moving of bees was a major undertaking. If a yard of bees was kept at some distance from the beekeeper's home, complete facilities for the extracting and processing of the honey were built right at the bee yard, as well as a place for the storing of the combs.

The beekeeper of today uses and relies on his trucks and pickups to operate his outyards, to move his bees in and out as he follows a pollination program, or for long distance moving as is the case with the migratory beekeeper.

Out here in the sandhill area of Nebraska we have gone one step further and are using a light plane to take care of the bees. It is in reality our pickup. The truck is used whenever it is necessary to move a

yard of bees, and of course to haul out the empty supers and then to bring in the honey if we are lucky enough to get some. The rest of the bee work, excepting on a stormy day now and then, is done with the plane. The bee yards are all located with a landing area close by and the plane can then be taxied right to the bees.

Using the plane for spring checking, for making increase, and for requeening means that a minimum of equipment is hauled to and from the yards. For this reason all the yards are the same size and the tops, bottoms and hive bodies are kept right at the yard at all times. Dead or queenless colonies that are found when making the spring check, are either stacked on other colonies or closed bee tight and left until they can be used for increase. Each yard is built up to full size every spring. The bees are wintered very heavy, mostly in three bodies so that very little feeding is necessary. One rule that we go by when

putting the bees into winter is, if the hive can be picked up, it's too light to winter. When it is necessary to feed, we use dry sugar. This is easily hauled out in the plane and enough can be taken at one time to feed two or more yards.

Three ten-frame bodies with screen top and bottom are used when making increase. They just fit in the back seat of the plane and are tied down with rope. When we start to make increase, these are taken to the strongest yard and enough frames of brood and bees are taken to make as many new colonies as are necessary to fill out the next yard. By doing this there is very little drifting and the increase will all be about the same strength. In a matter of minutes after the screen tops are fastened on, and with a minimum of jarring, the bees are in their new home and another yard is up to full size. Now the strong hives in this same yard are robbed of brood and bees to make the increase necessary to fill the next

yard and so on down the line till all the yards are full size again.

These new colonies are usually given laying queens—we try to have them arrive from the South from two to five days after the increase is made. The plane is really a time-saver for taking out the queens. Last year they were all installed in one afternoon, a job that would have taken two days with the truck. Once in a while we do some requeening by killing the old queens and giving a ripe cell a few days later. Here again the plane is ideal, getting the cells to the hive in a minimum of time and with very little jarring.

After the supers are on the bees, the plane is a quick and accurate means of checking the bloom stage of the clover and alfalfa. This is done from the air at rather low elevation. Nothing can be prettier to the eyes of a beekeeper than a field of alfalfa that is in full bloom and seems to reflect the blue of the sky. It's a beautiful sight from the ground but for some reason it always seems bluer when viewed from the air.

When the honeyflow is on, the plane is used to keep a close check on the bees as to which ones are

filling up the fastest and where the first honey can be taken off. It is used again for the fall inspection and then later when making the final rounds to close down the entrances for winter.

Yes, here in the sandhill area the plane is our pickup and we think a very good one. This sandhill country is rolling prairie and pasture land with once in a while a creek or a wet meadow that will have alfalfa or clover. As a result the bee yards are rather far apart. Many of our roads are mere trails and they follow the terrain instead of the section lines so some of them are rather roundabout in getting to their destination. As an illustration, one of the yards is twelve minutes out with the plane and it takes two long hours with the truck. Several of the yards are close to two hours from home with the truck, but none of them are more than thirty minutes with the plane. This means a real saving in time when there is much work to be done. After a long day in the bee yard it is surely a relief to prop the plane and be home in a matter of minutes instead of bouncing over a rough road for over an hour in the truck.

Many beekeepers, especially those

located in thickly settled areas where the bee yards are fairly close together, would probably have little use for a plane in the actual bee work. However, all beekeepers, especially the large operators, regardless of where they are located, can make very good use of a plane in checking bee territory and also in the actual spotting of the location where the bee yard can be placed.

With the plane you can tell exactly how big an area the bees would have to work and how much of that area is in clover, alfalfa or row crop. Bees already in an area show up very plainly so there is no chance of unknowingly crowding another beekeeper. It's easy to spot the water supply so you will know just where and how far the bees will have to go and if they will cause anyone trouble of any sort. From the plane you can pick out that vacant corner of a field, that southern slope in the corner of a pasture or that grove of trees with a southern exposure. All ideal spots for a yard of bees but places that you would probably never find as you drive along the road in a car.

A person does not have to own or be able to fly a plane to do this. It takes but a short while and if you do not have a flying friend who will be glad to take you on a Sunday afternoon, you can hire a plane and pilot at any of the small airports that are scattered over the country. If you have never flown, the trip will be a real thrill, and the price charged will seem very small for the good that can be accomplished by a trip over the area in which you are keeping bees. Nebraska.

John S. Shackelford of California was probably the first beekeeper in America to use aerial observation in his bee business and to realize a good profit from it. He has many hours flying time to his credit.



#### Packing Tip . . .

When packing sixty-pound cans for shipment in corrugated shipping cartons we have found it is best to glue the TOPS of the cartons in advance. This is done during spare time long before they are needed. When we wish to fill them for shipping, the honey cans are polished up with steel wool and the carton is slipped over the top of the honey can. The carton containing the can is then tipped upside down and the open end is coated with glue. It is then tipped back right side up and the weight of the 60 pounds of honey with the bottom of the can resting on the bottom of the carton will cement it in place very tightly. Can be done in less time than it takes to tell about it.

E. F. Bea, Minnesota



## Where to Sell Honey . . .

Perhaps this article should have been entitled "Where Not to Sell Your Honey." We have had a number of letters this fall from beekeepers who during the past year or two years have been taken advantage of by presumably bonafide firms offering to handle honey, either to buy outright or handle on commission. This has been true, we believe, particularly in the central-western areas with firms whose locations have been in the larger cities.

It is very difficult in an article of this kind to "put your finger on" exactly the cancerous incidents and we want it to be particularly understood that this is no inference whatever on many brokers, jobbers, and wholesale dealers as well as packagers and buyers of honey who have done a legitimate business over the years.

We do, however, want to issue a word of warning to our subscribers on closing a sale or shipment of their honey on the mere receipt of a post card or circular letter through the mail offering to handle or buy the honey outright.

While it is true that our post office department frowns on any thing through the mail which might be fraudulent and that there is possibility of prosecution of parties who have used the mails to defraud, still one should certainly use a certain amount of precaution.

Where the parties writing are not thoroughly familiar to you, we would urge our subscribers to contact this magazine or any other bee magazine as well as any of the thoroughly reliable bee supply dealers who might be acquainted. Your best contact, naturally, would be your own bank who can get for you through their own sources, information on the reliability of such an individual. They will be glad to do this, particularly if it means help on some of your shipments.

And in the meantime, if any of our subscribers have apparently been swindled by such a procedure as mentioned above, we suggest they immediately get in touch with the post office department and give complete details on the transaction.

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## Sanitation

Sanitation is coming to the honey house as it has come to the kitchen. If we don't bring it about the customer will. No one wants to be told what to do in the kitchen and no housewife has to be told. It is likely true that most housewives spend a generous part of their time in the kitchen, so they want it a joy to the eye and a prideful place to be.

Many beekeepers feel that way about their honey houses. They want fine equipment, washable floors, clean walls, nice ceilings, water, steam. They want walkable floors, not rubber boot floors. They want light

and air and sunshine. They want tonnage if they are large commercial beekeepers. They want a stranger to come in and say "Gosh, what a wonderful place! How much is your honey?"

Sure, most beekeepers want things that way. But, alas and alack, there are still many (many who know better) who have none of this pride. The honeyhouse is just a work sty; just a place to get the crop in the can and let the lid seal the honey from its environment. Ever go into that sort of a honey house? I can show you some right close.

And, it must be that there are many such because there is a hue and cry for sanitation. That means, if we don't do better in our honey houses, the customer will. So watch for sanitation laws. The "bogeyman" will get you.

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## Museums of Beekeeping History

The Bee Research Association in England and the British Beekeepers' Association have a project which offers a challenge to beekeepers in America too. This is the beginning of a museum for the preservation of things of historical interest. The first exhibit was held in November in the Haslemere Educational Museum of which John Clegg is the curator. The exhibit ranged from early types of hives and simple skeps to all sorts of old appliances including prints, coins and books about bees. It is hoped in time to make this museum not only European but perhaps also international in character.

Here in North America, there has so far been few repositories for the old and long forgotten appliances which helped to build up our beekeeping. There are two, we recall, the museum established at the University of Massachusetts by Burton N. Gates, and a museum projected now under George Abrams at the University of Maryland. In a recent letter, Mr. Abrams issues a call for the use of the Maryland University Beekeeping Museum in their new apiculture building, to beekeepers throughout the country, so that they may send there anything they have which is of historical character and needs such preservation. Old hives, such as the original Langstroth, the Simplicity, the Quinby, the original Dadant, the Poppleton Long Idea hive, the Massie, the American, the Danzenbaker and others; smokers, like the old Root, the Bingham, the Clark and the Champion; early foundation mills including the Given Press; old molded top bar frames, the V-top bar, closed end frames; and anything of like nature.

No doubt in many honey houses, basements and attics and even in college class rooms, there may be a representative collection of historical American beekeeping antiques. So it seems to us that it is opportune to find proper housing for a museum dedicated to this purpose. British Beekeepers' Association is to be commended for a project of this nature in their country.



## Two-Queen System Trials in Cyprus

By S. A. L. Thompson

The reports and recommendations on honey production by the two-queen system seemed so attractive that I decided to give the system a try on two of my apiaries, equally divided, in 1950. In all 46 colonies were doubled and 46 remained single.

Doubling was done late in May and all colonies immediately fed. A period of dearth started in early May, with the onset of late rains, only small patches of *Teucrium* being available until June 20, when the bees were observed working thistle. Our main flow, from wild thyme, lasted from June 27 till August 10. Sirup and dry sugar feeds were given from May 26 to June 27.

It was a very poor season, and I am not entirely satisfied that the plan will not succeed if the season were better.

The 46 doubled colonies gave a total surplus yield of 445 pounds, while the single ones gave me 443 pounds. On the surface, the doubling did not pay as there is a much greater amount of work with the two-queen colonies.

Significantly, the weaker colonies placed over strong ones seemed to benefit the most. But almost invariably, the lower colony remained the stronger, and in nine instances I had to break up the top colony since all the field strength apparently had gone to the colony below.

In general, the two-queen colonies had collected more pollen than the single ones, and there was a larger brood-count also in the two-queen stocks. A further trial is worth while to determine whether earlier feeding, earlier uniting into two-queen units, and a better all-round season may not vindicate the arguments and results of the two-queen enthusiasts.

Isle of Cyprus

### "King of Honey" . . .

We learn through the Quebec bee magazine "L'Abeille" that Mr. Moise-Pierre Masson has been selected as the "King of Honey" in the exhibit at the Provincial Exhibition in Quebec. In addition to the cup presented by the Minister of Commerce and Industry to the King of Honey, the Continental Can Company of Canada offered a special prize.

Similar prizes are offered each year for "King of Maple Syrup."

## Current Reading

Conducted by  
M. G. Dadant



### Canadian Red Clover Seed Production Studies . . .

In a reprint from Scientific Agriculture 32:67-80, February, 1952, Canadian scientists report results obtained during 1950 on the control of injurious insects and the utilization of honey-bee pollinators in red clover seed production. The paper is entitled, "Studies in Red Clover Seed Production," by R. M. MacVicar, E. Braun, D. R. Gibson and C. A. Jamieson. It is a joint contribution of the Divisions of Forage Crops and Apiculture, Experimental Farms Service, Canada Department of Agriculture, Ottawa.

Seed yields of red clover were increased as much as 25 per cent when fields were sprayed with insecticides to control harmful insects, the most effective control being a pre-bloom spray of DDT followed with toxaphene at the full-bloom stage. When grasshoppers were controlled with toxaphene, seed yields were increased approximately 18 per cent. The insecticides did not appear to cause abnormal pollinator mortality.

Seed yield varied directly with activity of pollinators and their effectiveness decreased between three-fifths and four-fifths of a mile from the apiary. Pollen-gathering activity in red clover was maintained at a high level. When one colony of bees per acre was used, honey bees and bumble bees were present in a ratio of 12.5 to 1.5. Seed yields were not increased when honey was applied to the foliage to attract pollinators.

The nectar volume in fertilized flowers diminished rapidly the fifth day after full bloom and sugar concentration decreased from the third day after fertilization. In unfertilized flowers, the nectar volume diminished after the seventh day and sugar concentration began to decrease at the same time. Blooms

in screened cages gave significantly higher values for both volume and concentration than uncovered blooms. Insecticide-sprayed plots showed significantly higher nectar concentration than the unsprayed (check) plots, but there was no significant difference in the volume of nectar between these plots.

### Field Activities of *Nosema* Afflicted Bees . . .

In an article in the Scottish Beekeeper, M. H. Hassanein, of the Ibrahim Pasha University of Cairo, Egypt reports experiments conducted on relative field value of honey bees afflicted with *Nosema* and healthy bees. His results show a great balance in favor of the harvesting possibilities of the *Nosema*-free bee.

In the case of the healthy bee, the number of trips to the field in the time in question was a mean of 20.4 trips, while with the *Nosema*-afflicted bee the mean average fell to 11.2 trips per day.

### Bees in Kentucky . . .

"The Rural Kentuckian," the official publication of the Rural Electric Co-operatives of Kentucky, with a circulation of 141,000, in its October number has an article on Man's Biggest Little Helper, giving the activities of Morris Black, one of the larger beekeepers of that state.

It is impressed upon the reader that not only is the honey bee necessary to our row crops, our fruits and our vegetables, but equally necessary in our permanent pastures where seed set means the perpetuation of the legumes. Agronomists in that locality are contending that every farmer will eventually have two or more colonies of bees to insure proper pollination.

# Important Medicinal Uses of Honey

**I**F I were asked to select from the many medicinal uses of honey the ten I considered most important I would choose the following.

First, would be the taking of honey during pregnancy because the newborn infant would be strong and vigorous. It would have so much hair on its head it would need a haircut the day it was born. It would raise its head from the pillow before it was a week old. It would digest its food and have the bowel action of a normal baby. Because of the width of the horseshoe shaped arches in the mouth for the upper and lower teeth there would be no crowding of the teeth when they appeared. This child would have a good mind and do well in school. Surely this is a sufficient reward for taking two to six teaspoonfuls of honey each day in order to get the trace minerals in honey which are so necessary for proper body performance.

Second, would be the adding of one or two teaspoonfuls of honey instead of other sugars to each eight ounces of the feeding formula so that colic and diaper rash would be avoided. By adding honey to the feeding formula I would aid in controlling the bowel action. If constipation appeared, the amount of honey added to the feeding formula would be increased one-half teaspoonful. If a laxative action was present, the amount of honey would be decreased one-half teaspoonful.

Third, I would use honey as a food supplement as the child grew

in order to get the trace minerals in honey so necessary for complete growth and development of every part of the child's body. A child receiving a daily supply of the trace minerals found in honey has much less to fear from harmful germs.

Fourth, should bed-wetting at night appear in a child I would prescribe one teaspoonful of honey at bedtime in order to bring about a disappearance of the bed-wetting. Honey is a magnet for water and draws fluid to itself.

Fifth, when the child was teething I would use honey to control the pain of cutting a tooth. One fourth of a teaspoonful of honey followed by a swallow of water is given when the infant is ready for bed at the end of the day. This honey ensures a good night's rest for the infant by controlling the pain. The honey lowers the blood phosphorus level which is high when pain is present.

Sixth, I would turn to honey to produce needed sleep in adult individuals because it is far superior to the "lullaby pills" often taken to produce sleep. Two teaspoonfuls of honey are taken at bedtime. If awake at the end of an hour after getting into bed take another two teaspoonfuls and continue this amount each hour if awake. As a rule one dose is sufficient to produce sleep. Honey is a powerful sedative to the body.

Seventh, honey furnishes the ideal pick-up drink. Two teaspoonfuls of honey and two teaspoonfuls of ap-

ple cider vinegar here in Vermont produce a greater body lift than tea or coffee. It represents the old hay-field drink.

Eighth, I would turn to honey to regulate the body bowel action from day to day. Honey is a mild laxative. If constipation was present more honey would be taken. If an undesirable laxative effect appeared, less honey would be taken. By the use of honey I would have a long range program agent that would ensure proper bowel action.

Ninth, if twitching of the eyelids, twitching of the corner of the mouth or cramps in the muscles of the legs appear, the taking of two teaspoonfuls of honey at each meal would bring about their disappearance. The honey would raise the blood calcium which is low when muscle cramps appear.

Tenth, but not least, the human body ages slowly when honey is taken each day. It helps greatly to make more enjoyable the latter part of life. Honey is a tonic to the heart, is soothing to the stomach, promotes bowel action, increases muscle efficiency, increases energy, produces sound sleep at night—all of which the aging body appreciates.

With honey as a source of trace minerals, with its laxative action, its attraction for fluid in the body, its sedative action, the living of this life from day to day is made much more pleasant than it otherwise would be.

Vermont

## - Feeding Honey -

Would it be all right to feed honey back to the bees in the spring that was taken off the hives in the fall and was only partly sealed?

C. Meid, Wisconsin

If this honey was extracted from the combs and is in a liquid condition it can be fed back to the bees.

However, if it is granulated in the combs it will be best to give it back to a colony right in the combs and let them take what they can of it. It is difficult for bees to handle granulated honey in the comb if there is any quantity of it. If there is only a small quantity they can

usually bring in enough water to dissolve the granulated particles as they use it. Feeding honey back should be done carefully in the event that any disease is present in any of your colonies. If your bees have been inspected and are free of disease there will be no danger in feeding back this honey.

# My Bee Achievements in Collingsworth County

by John Thomas



(The author of this article is a 4-H Club boy from Wellington, Texas. The following is a talk which he gave at the Texas Beekeepers Association meeting held in September, 1951. At that time he was 14 years old. In February 1952, the Collingsworth County Beekeepers Association was organized and John was elected secretary.—Ed.)

county. Mr. Glenn Gibson was the first commercial beekeeper to bring bees into the county. Now that the bee population is beginning to expand, it is becoming more important that we give more consideration to bee management. We are in the process of organizing a Collingsworth County Beekeepers Association.

I became interested in beekeeping four years ago. While attending the Texas 4-H Club Round-Up in 1950, I contacted Dr. Thomas and through correspondence with him I have helped in solving various beekeeping problems for some of the farmers in Collingsworth County.

In the past year, Barton Groves, a neighboring 4-H club boy, and I put up nail kegs and caught twenty-three swarms of bees. Several farmers came to us and asked about putting the nail kegs up and we also helped them transfer the bees into movable frame hives.

During the past year I have helped about 40 farmers and beekeepers catch swarms, introduce package

bees and queens, transfer bees into modern hives, remove bees from houses, obtain bulletins, and order catalogs and equipment. I sent the first cases of American foulbrood in the county to Dr. Thomas for identification. I have been called to help farmers select colonies to buy, helped clean up diseased colonies and equipment, and have shown film on diseases of the bee colony to the 4-H clubs in our county. I have also made talks on bees and pollination to the county farmers, Kiwanis and Lions Clubs, and have written articles for the county newspaper on the possibilities of bees increasing alfalfa seed production.

A neighbor who lives one-half mile from us harvested 16 acres of alfalfa this year. He sprayed twice for thrips, and we think that the pollination afforded by twenty-six colonies of bees greatly influenced his good yield of 347 pounds of cleaned seed per acre. This yield was far above the average for this county. Two hundred to 250 pounds of cleaned seed per acre is considered good.

Barton Groves and I fixed a bee exhibit in the State Line Fair at Shamrock. In this exhibit we had an observation hive, parts of the hive broken down so that they could be seen, alfalfa seed and blooms, foundation, wax, pictures of our bee yards and our equipment for handling bees. The observation hive was placed upon a setting covered with bee magazines. This booth drew more attention than any other at the Fair. We won the rosette for having the best exhibit.

Texas

**D**UE to the tremendous acreage of cotton, grain, sorghums, and wheat in our county, there is a great need for soil-building crops such as clover, vetch, and alfalfa. Through the use of bees for pollination, seed production has been increased on these crops and therefore there is added inducement to farmers to break this vicious cycle of cotton, grain and sorghums which is so disastrous, especially to our mixed and sandy soils.

A few farmers have bought bees in the last two years for the purpose of pollinating alfalfa in this

The author's apiary. Four-H work is a good way to get started in beekeeping.



# Centenary of Frank Benton

by Ralph Benton



Frank Benton at the age of 29, taken in Colombo, Ceylon, in April 1881 while he was making his first trip abroad.

At left is an earlier photograph taken in Coldwater, Michigan, when Benton was attending the State College at Lansing as a student under Dr. A. J. Cook, his distant kinsman.

THE year 1952 marked the centenary of the birth of Frank Benton, well-known American scientist, linguist and agricultural explorer of a generation ago, who in the course of his career made many contributions to the advancement of beekeeping. Perhaps the most noteworthy of these was the investigation and introduction of better strains of the several races of honey bees, together with the invention of the queen mailing cage which bears his name, and the admission of live bees to the mails of the International Postal Union. These investigations entailed long periods of foreign travel and residence in the native habitats of the geographical races of bees bearing fruit of vital

value to the beekeeping industry throughout the world. These contributions resulted in the emergence of this American as an internationally known figure in the beekeeping world along with such men as Langstroth, the inventor of the movable frame hive; Dadant, its popularizer abroad where the hive came to be known as the Dadant hive; and Bingham, the inventor of the bee smoker so essential in the control of bees under manipulation—all features which helped to start the transformation of beekeeping from something of a time-consuming, poetic, pastoral pastime to that of a modern agricultural enterprise integrated with fruit and seed production through pollination—one of the

essential foundation stones of agriculture.

Frank Benton was born July 5, 1852 in Coldwater, Branch County, Michigan, the son of pioneer settlers who had made their way west from the Berkshire Hills of Massachusetts, into the Hudson River Valley, along the Erie Canal trade routes to the Great Lakes, Ohio, Michigan and the great central basin of the Mississippi Valley. He was the son of Corydon P. Benton and Phoebe Ann Baldwin, in the sixth generation from Andrew Benton of Shingle Hall Manor House of Epping Parish, Essex, England, and an original grantee of the town of Milford, Ct., in 1639. Frank Benton's father was the editor and publisher of the



Branch County Gazette, leading newspaper of south central Michigan—the William Allen White of that area—who served also in positions of trust locally as county clerk for several terms and postmaster during President Pierce's administration. Young Benton as a youth learned the printer's trade as an apprentice in his father's shop; but susceptible to lead poisoning he early abandoned the printing office to learn the cooper's trade in his Uncle Edward Benton's shop at Bronson on the St. Joe River. Accustomed to follow the barrels down the river to Bronson Harbor, later known as Benton Harbor, as a port of call for Benton barrels, it was not long before we find the young man shipping out for two years before the mast, rising to the rank of third mate of a barkentine.

Young Benton took long hunting and fishing trips among the oak openings of his native Michigan and became also a good horseman—features which later marked him as an inveterate explorer and mountain climber. He climbed Pike's Peak when only a trail led up the Colorado mountain and among the relics of his foreign travel is a cane turned from a walking stick cut by him as early as 1880 when he made the ascent of the highest mountain on the Island of Java, to which island he first introduced European honey bees and made studies of the giant

bees of the jungles of the Orient. However, his most ambitious ascent was that of Mt. Ararat some years later, one of the highest peaks in the world, standing at the juncture of Armenia, the Caucasus (home of the Caucasian bees under investigation at the time) and Persia (Iran); and also we find him organizing a caravan to cross Persia and later making Khyber Pass in the Northwest Frontier Provinces, now Pakistan, (India). It was on this trip through Persia that Frank Benton discovered and imported to America the winter Persian melon so popular now as an autumn delicacy in our American way of life.

As a young man Frank Benton taught his way through college, early serving as an instructor in the University of Tennessee at Knoxville (1875-76) and later as instructor of French at Michigan State College at Lansing from which he was graduated as salutatorian (second in his class) in 1879—later receiving the degree of Master of Science from the same institution in 1885.

During his first lengthy stay abroad of eleven years (1880-1891) investigating the various races of bees of Europe, North Africa, and the near Orient—Cyprians from the Island of Cyprus; Palestine or Holy Land bees from the Lebanon, Tunisians or Punic bees of North Africa; the Ligurian or better strains of Italians from upper Italy; and final-

ly the much prized gentle bees of the Carnic Alps, the Carniolans—Frank Benton found time to study for a time at the University of Athens and for several winters at the University of Munich—the mecca for scientific students of his day. In 1911 he was granted a Certificate of Distinction as a Linguist and Orientalist from the International Academy of Science, Arts and Letters of the District of Columbia at Washington; and in the same year received the degree of Doctor of Science (Sc. D.) from the School of Philosophy of the Oriental University of Alexandria, Virginia.

Late in 1890 while still in Europe, Dr. C. V. Riley, then chief of the Division of Entomology at Washington; commissioned Frank Benton to proceed from Europe to Asia Minor to investigate and import to America the blastophaga wasp, the natural pollinator of the Smyrna fig. This was in the interest of the young fig industry developing in California; but unfortunately this commission passed Mr. Benton already on the high seas returning to his native land, and it was not until some years later that the wasp was brought to America through private enterprise, the government fostering of this project having been deferred through the untimely death of Dr. Riley—the father of American Economic Entomology.

(To be continued)

## Dry Sugar Feeder . . .

A feeder for feeding dry sugar can be made from a one or two gallon motor-oil can. Clean the can with gasoline, do not use kerosene, and rinse with hot soapsuds and a last rinse with warm water to which has been added strong vinegar, let dry thoroughly. Punch or drill several half-inch holes along the bottom edge on one side. Pour in the dry sugar, screw the cap on tightly to keep out moisture. Fasten the can on the alighting board of the hive so that the bees can have access to the sugar through the holes. A short piece of soft wire will hold the can in place. This works well in a dry climate but the sugar might "cake" in a damp locality, therefore the holes in the can should be large enough for the bees to enter the can. Used sixty pound cans might serve as well as the smaller ones.

## Honey Vinegar . . .

Beekeepers are always looking for a new way to use honey in order to improve the market. Here is a way to use strong flavored honey. Three pounds of honey mixed with eight quarts of water and a slight amount of yeast to start things off, will, in a few weeks, produce two gallons of very fine quality vinegar. To a fastidious person, this should prove attractive, considering the quality of apples sometimes used in the making of cider vinegar. The idea has commercial possibilities as well.

A glass or earthen crock should be used in making the vinegar. Keep this covered with a coarse cloth. There is an intermediate product which has a kick worse than a whole colony of bees at honey harvesting time, but we are talking about vinegar, not wine!

Roy L. Gale, Connecticut

## A Handy Tool . . .

A sharp hay hook, such as is used in handling baled hay, may be used when loading or working with hives. Stick the point of the hook in the handhold and you will have a real handle on your hive. It is useful when you wish to drag or tilt a hive with one hand. For pulling hive staples loose, it can't be equalled.

## Removing Swarms . . .

I learned accidentally that a new swarm may be removed from a house with the use of DDT. I was trying to kill a swarm lodged in the foundation of a house, but instead the bees flew right out and spent an hour or two fanning themselves to get rid of the insecticide. They eventually clustered and I hived them. How this would work with an established swarm I have not had occasion to discover.

R. N. Crawford, Kansas



The "Garden City" where this year's convention will be held. This aerial view shows the Civic Auditorium (large building in the center of the picture) and did you notice those palm trees? Here's your chance for a wonderful vacation away from the ice and snow.

# California Federation Meeting

San Jose

January 26 - 31  
1953

## Program

The program for the annual meeting of the American Beekeeping Federation in San Jose, Calif., on January 26 to 31, 1953, will include a full day devoted to pollination and the problems and operations involved in providing the service expected by those who pay for it.

Topics will range from the rather technical one of the proper use of insecticides to the very practical one of replacing muscles with machines. It is expected that several new devices for handling hives and equipment will be explained, with several of them on hand for actual examination.

Among those expected to take part this day are Clarence L. Benson, Chairman of the Honey and Pollen Plants Committee of the Federation, Dr. Jas. I. Hambleton of the Division of Bee Culture and Biological Control, USDA, Dr. J. E. Eckert of the University of California, Dr. G. S. Garrison of the Division of Forage Plants and Diseases, USDA, Ray Reed of Fullerton, Calif., Harry Whitcombe of Davis, Calif., and a number of others whose messages will be equally interesting.

Another day will be devoted to marketing, the Federation program, the PMA program and the activities of other groups and individuals that have contributed to improved markets in recent months.

Mr. G. Chester Freeman of the Food Distribution Branch of PMA will explain the development of the Plentiful Foods program for honey. State Departments of Agriculture, State Extension Services, large packers, small packers and individuals will have reports of their participation and their observation of results.

Mr. S. R. Smith, Director of the Fruit and Vegetable Branch of PMA, will discuss price support for honey and the operation of the program under the Agricultural Act of 1949.

Both the Honey Utilization Committee and the Honey Handling Standards Committee will have reports of considerable interest.

All regular sessions will be on January 28, 29 and 30, with the annual banquet on the evening of the 29th. The Executive Committee, the Board of Directors and other committees will meet on January 26, 27 and 31.

Both the topics to be discussed and the business to be transacted are of such importance as to indicate a larger attendance than in recent years.

## San Jose, California

Situated in the beautiful "Valley of Heart's Delight," fifty miles south of California's Golden Gate, is the historic city of San Jose. Since 1777,

when the Spanish adventurers founded San Jose, its hospitality and healthful climate have enchanted visitors to "The Garden City" of the West.

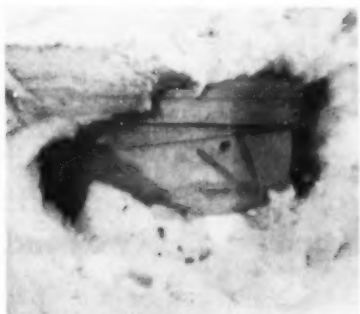
Founded as "Pueblo de San Jose de Guadalupe" under the authority of King Charles III of Spain, San Jose was the first civil settlement in California. Delegates to the state's first convention in 1849 chose San Jose as the first capital, and less than a year later, Pueblo de San Jose de Guadalupe became the City of San Jose.

The 20th century San Jose is a tidy, bustling metropolis of over 100,000 and a far cry from the sleepy Spanish settlement of bygone days. Industry and agriculture go hand in hand to provide San Joseans an over-all income far higher than the citizens of most cities.

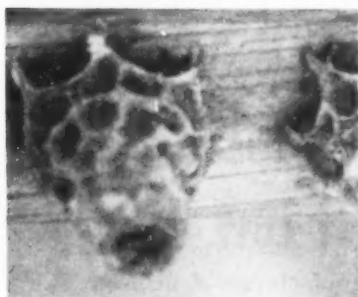
Because of its location in the bountifully fertile "Valley of Heart's Delight," San Jose quite naturally grew up as a market and shipping center whose industrial set-up related to food processing and packing and to food machinery manufacturing. Known as the "World's Canning Center," over 44 canneries and 30 dried fruit packing plants are located here. In the post-war period, over 100 nationally known firms have selected San Jose as the city best suited to serve the growing market on the West Coast.



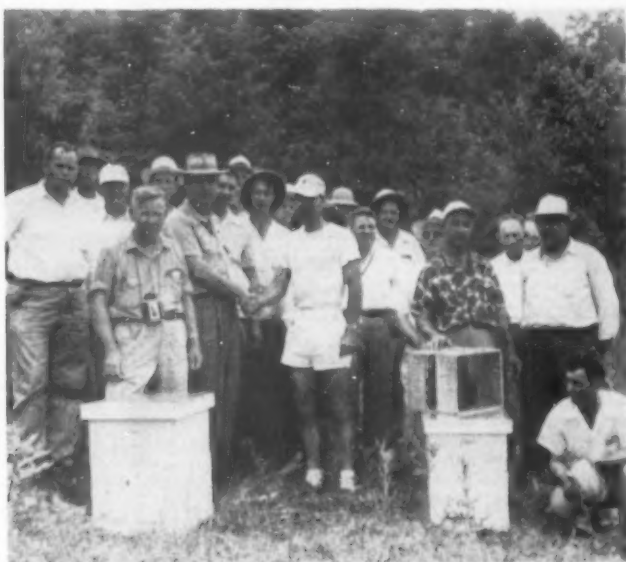
C. H. Wright sent us this picture of one of his WBC hives which yielded 180 pounds of honey above the excluder in 1949.



This hive, belonging to Alvin Sonnenberg of North Dakota, was covered with snow about a foot deep for over a month. When uncovered on a sunny day, the bees started flying at once. The hive had a hollow chamber around it.



Is this a dry queen cell? A "dry" cell is one that has no leftover royal jelly at the base. Virgins that emerge from cells that have been plentifully supplied with food are always well developed.



At the annual summer meeting of the N. Carolina Association these two colonies were installed with 5-pound packages. The colonies will be used by the 4-H Club at W. ynesville. Bees were donated by G. E. Curtis (hand on empty package). Shaking hands are Banks Cashion, Pres. (left) and E. B. DeGroat, Camp Director. Manufacturers donated the equipment. W. A. Stephen, Extension Beekeeper



This is the pack now being used by R. D. Bradshaw & Sons who have obtained exclusive franchise for the use of the Hopalong Cassidy name on honey. Hoppy's popularity with children has had a phenomenal effect on sales of other foods.

Merry Christmas — Happy New Year  
to All Our Customers



Now Booking Orders for 1953 for  
Dadant's Starline Hybrids—The Bees of the Future

Reg. U.S.  
Pat. Off.

Recent reports indicate a more than normal demand for bees and queens. I returned more orders last year than I filled, there is a reason for that. Get your order in now to avoid delay. Shipments begin April 1.

Queens—\$1.50 each prepaid air mail if it saves time.

Two pounds bees with Starline Hybrid queen ..... \$4.50 Exp. col.

Three pounds bees with Starline Hybrid queen ..... 5.25 Exp. col.

Four pounds bees with Starline Hybrid queen ..... 6.00 Exp. col.

If packages are wanted by mail, they will be sent C.O.D. postage and special handling. Write for prices on lots of fifty or more.

I will have a few of my old stock of regular Italians that are gentle and tops in honey production at 25c per unit less than above prices.

S. J. HEAD, Crossett, Arkansas

## ITALIAN BEES AND QUEENS

	1-24	25-99	100 up
2-lb. pkg. and queen	\$3.00	\$2.90	\$2.80
3-lb. pkg. and queen	4.00	3.85	3.75
4-lb. pkg. and queen	5.00	4.85	4.75
Nice large queens	.95	.90	.85

Live delivery guaranteed, young bees and queens. 10% books order, balance 20 days before shipping.

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## DIVISION BOARD BEE FEEDER



80c ea. — shipping wt. 3 lbs.

Carton of 5 Feeders postpaid  
anywhere in U.S.A. for \$6.00

- Fits into your hive just like a frame.
- Masonite Presswood sides are securely nailed to a rigidly constructed pine frame.
- Paraffin treated to resist moisture.
- Holds ample supply of sirup.

Terms: Cash with order. Prices quoted are f.o.b. Belton, S. C., unless otherwise stated. For Parcel Post shipments enclose enough postage to cover shipping.

Order Today! Prompt Shipment!

DIXIE WOOD WORKS

Belton, South Carolina

## BETTER BRED QUEENS Three-Banded Italians

Happy New Year! Let us quote prices on our Better Bred Stock for 1953.

CALVERT APIARIES, Calvert, Ala.

## A HAPPY and PROSPEROUS NEW YEAR



to our many friends and customers.

When you need good bees and  
queens remember us.

Prices will be announced  
next month.

THE STOVER APIARIES

Mayhew, Mississippi

We wish to take this opportunity  
to thank all of our customers for  
their patronage, and to extend

## THE SEASON'S GREETINGS TO ALL

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AUGUST LOTZ COMPANY

Manufacturers & Jobbers

BEE SUPPLIES

Boyd, Wisconsin



## PACKAGE BEES FOR 1953

Truck loads a specialty.  
Nuclei made to order. Italian  
queens.

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Route No. 2 — Box 207  
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## HONEY WANTED

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## ITALIAN PACKAGE BEES AND QUEENS

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Write for Prices  
Quality Does Not Cost—It Pays

The Wilbanks Apiaries  
Claxton, Georgia

## PACKAGE Bees and Queens

For Quality and Service

C. F. Koehnen & Sons  
Glenn, Calif.

## PACKAGE BEES... GULF BREEZE... QUEENS

The name "GULF BREEZE" is associated with **QUALITY AND SERVICE**. If you need one package or a truckload, write us **TODAY** for prices and shipping dates. Use **GULF BREEZE** stock for pleasure and profit.

**BESSONET BEE COMPANY** Donaldsonville, La.



## Ladylike

**CAUCASIAN** bees and queens for 1953.

Prices available about January 1st.

Book orders early to avoid disappointment.

**CAUCASIAN APIARIES** Castleberry, Ala.



Italian  
**QUEENS**

Heavy  
**PACKAGES**

1953

Reg. U.S.  
Pat. Off.

Please book your order as soon as you can determine your needs so that you will not be disappointed on shipping dates. We have already booked much business for 1953 and want your order to be included. Live Delivery guaranteed.

**THE RICH HONEY FARMS**

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Address us at Clarkson, Kentucky,  
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**KELLEY—"The Bee Man"**

We have closed down our plant at Paducah and moved our office, machinery and supplies to our big new plant at Clarkson to better serve you.

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## Wishing You a Prosperous and Happy New Year

As announced last month we have the  
exclusive Contract to supply  
Island Hybrid Queens in 1953.

Island Hybrid Bees are produced by crossing two inbred lines to produce the virgin. When mated to a drone produced from another two lines the result is an outstanding bee possessed of full hybrid vigor. They have been tested both by U.S. and Canadian Bee Culture.

Orders must be filled in the order received  
after available dates have been allotted.

Order Early.

	Prices express collect	1 to 25	26 up
2-lb. bees with Hybrid queen	\$3.50 each	3.25 each	
3-lb. bees with Hybrid queen	4.50 each	4.25 each	
Hybrid queens	1.50 each	1.40 each	
Regular queens deduct 25c each from above prices			

"They Produce"

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## MEETINGS

### Michigan Beekeepers Meeting East Lansing, January 27-28

The annual Farmers' Week meeting of Michigan beekeepers will be held in rooms 103-104 Kellogg Center, Michigan State College, East Lansing, January 27 and 28, 1953.

The meetings will start at 10 a. m. each morning. The banquet will not be held this year. But in its place will be an interesting evening of slides on beekeeping in Costa Rica and Peru by E. J. (Tim) Dyce of Cornell University. In addition there will be entertainment and refreshments.

Dr. Dyce will also have important information about improved methods of honey packing. Jack Deyell, editor of *Gleanings in Bee Culture* and Dr. Ken Payne, new head of Farm Crops M.S.C., will be among the speakers. Several other speakers will make a well rounded program.

All beekeepers are welcome from Michigan and neighboring states. A trip to the College during Farmers Week is well worth while in addition to the beekeepers meeting. Many well known personalities contribute to outstanding programs dealing with entertainment, travel, agriculture, and so forth. We hope to see you there.

E. C. Martin,  
Program Committee

### Empire State Honey Producers Meeting Postponed

The annual winter meeting of the Empire State Honey Producers' Association has been postponed from late fall until March 20 and 21, 1953, according to Dr. E. J. Dyce, professor of apiculture at Cornell. More than 100 are expected to attend the newly scheduled affair at the Hotel Syracuse, he added.

"The date has been advanced to early spring to avoid bad weather," said the beekeeping specialist. "Yet the event occurs before beekeepers become too busy with the problems of spring management."

Results from the 1952 bird's-foot trefoil pollination experiments conducted at the Cornell Agricultural Experiment Station will be revealed

by Dr. W. L. Coggshall, Cornell's extension apiarist. This plant, a legume, promises a new source of income through pollination.

Prof. E. C. Martin, apiarist at Michigan State College of Agriculture, will be one of the guest speakers. Representatives of bee supply companies and leaders from other state beekeeping organizations will round out the program.

A dinner, to be held in the evening, will give beekeepers a chance to renew old acquaintances.

### Middlesex County Beekeepers Assoc. Waltham, Mass., Jan. 31

The next meeting of the Middlesex County Beekeepers Association (Mass.) is scheduled to be held at their winter quarters at the Massachusetts State Experimental Station at Waltham, Mass., on January 31, 1953. The first regular meeting of the year will be for the planning of the bee and honey display to be shown at the Massachusetts Horticultural society spring flower show in March. This is a top event here in Boston and many thousands of people see and learn about bees for the first time at this display which runs for a full week and draws people from all the New England and East Coast states.

The chairman of the show committee, Victor Thomas, will be assisted by 20 men and women members of his committee. The show is expected to be the biggest ever.

John H. Furber, Sec'y.

### Farm and Home Week Beekeeping Program, University of Illinois February 3-4

The Department of Entomology of the University of Illinois will offer a 2-day program of beekeeping subjects during the Annual Farm and Home Week of the University of Illinois, February 2-5, 1953. Speakers on the Beekeeping Program, February 3-4, include Carl E. Killion, State Apiary Inspector; G. H. Cale, Editor of the *American Bee Journal*, Hamilton, Illinois; Roy Westley of the A. I. Root Company, Chicago, and V. G. Milum, Apiculturist of the University of Illinois. There are no registration fees or costs other than for

travel and board with plenty of available accommodations. A complete copy of the program may be obtained by a postcard request to the Agricultural Information Office, Mumford Hall, Urbana, Illinois.

### Program

#### Tuesday, February 3

9:00—Through the year with the bee colony—V. G. Milum.

9:45—How the honeybee uses its body structure—V. G. Milum.

10:45—The essentials of good hive equipment—Roy Westley.

11:30—Equipment assembling demonstration.

1:00—Illinois honey plants, areas and blooming dates—Carl E. Killion.

1:45—The nature of honey and its care—V. G. Milum.

2:20—Building a honey market—Roy Westley.

7:00—Apiary Inspectors Conference (others invited).

Adult Bee Diseases—V. G. Milum.  
Diagnosing Brood Diseases—G. H. Cale.

Apiary Inspection and Disease Control—Carl E. Killion.

General Discussion—Apiary Inspectors.

#### Wednesday, February 4

8:00—Fall and Winter Management of Bees—V. G. Milum.

9:00—Spring and Summer Management in Extracted Honey Production—G. H. Cale.

10:00—Management for Section and Bulk Comb Honey Production—C. E. Killion.

11:00—Management for Pollination and Seed Production Service—G. H. Cale.

1:00—Comb pests and their Control—V. G. Milum.

1:30—What Race and Strain of Bees shall we use?—G. H. Cale.

2:20—How to start in Beekeeping—Carl E. Killion.

The above beekeeping program on Tuesday-Wednesday, February 3-4, 1953, is a part of the general Farm and Home Week program offered by the University of Illinois on February 2-5. Other subjects included are corn, small grain, and forage crops production, poultry and stock production, drainage, farm machinery, and so forth.

**New Jersey Beekeepers' Association  
Fiftieth Anniversary Year  
Annual Convention**

**Thursday, January 29, 1953**

Auditorium, Y. W. C. A., 140 East Hanover Street, Trenton, N. J. E. W. Sutvan, president, presiding.

**Morning Session—10 o'clock**

President's Address.  
Report of secretary-treasurer—Milton H. Stricker, Annandale.

Reports of Officers.

Talk by Professor George Abrams, Professor of Apiculture, University of Maryland, subject to be announced.

**Afternoon Session—1 o'clock**

Judging of Honey Cookery contest.  
1:30 p. m.—Election of Officers.  
Talk by Professor George Abrams, Professor of Apiculture, University of Maryland, subject to be announced.

**"Stump the Experts."**

Report of Experimental Work, Prof. Robert S. Filmer, Assoc. Research Specialist in Entomology, N. J. Agricultural Experiment Station.

Report of Beekeeping Inspection Work, Paul L. Holcombe, Supervisor of Bee Culture, N. J. Dept. of Agriculture.

**Dinner—6:30 p. m.**

Entertainment.

Distribution of prizes for Honey Cookery contest.

Auction of Honey Cookery Entries.

Motion Picture—Von Frisch's "Dances of the Honeybees."

**Annual Meeting  
Cook-DuPage Beekeepers Assoc.  
Chicago, February 7**

The Cook-DuPage Beekeepers Association will hold its annual meeting and banquet Saturday afternoon and evening beginning at 1:30 p. m., Feb. 7, 1953, at the Lawson Y. M. C. A., 30 W. Chicago Ave., Chicago, Ill. Parking facilities are adequate. Street car, subway and bus are at the door. Turkey dinner will be served at 6:30 p. m. at \$2.75 per plate. Reservations must be in by Jan. 31, 1953. Send check to Richard Reid, 2616 N. Richmond St., Chicago 47, Ill. Phone Everglade 4-6189.

This is Cook-DuPage's annual Round-up, the speakers are the most outstanding authorities on beekeeping.

Afternoon Session—3 p. m. Dr. M. H. Haydak, University of Minnesota, "Is Pollen substitute beneficial to beekeeping in this zone."

3:30 p. m. Carl E. Killion, the world's best producer of comb honey,

"Spring Management and Swarm Control."

4 p. m. G. H. Cale, editor of American Bee Journal, "New ways to produce a crop of honey."

4:30 p. m. Prof. V. G. Milum, University of Illinois, "Extracting and Care of Honey."

5 p. m. Movies on Beekeeping.

5:30 One-half hour in getting acquainted.

6:30 p. m. Banquet and entertainment.

7:30 p. m. Panel discussion by the speakers, Prof. V. G. Milum, Moderator, "Is Beekeeping Up to Date."

Bring your questions, they will be answered by experts on the panel.

Come early and bring your friends. Everyone welcome.

**Farm and Home Week  
University Farm  
St. Paul 1, Minn.**

**Program**

**Tuesday—January 13**

1:45 p. m. Beekeeping for Profit and Pleasure—M. H. Haydak.

2:45 p. m. Starting Right with Bees—Frances Sundberg.

3:45 p. m. Beekeeping Problems—Discussion panel.

**Wednesday—January 14**

9:00 a. m. What We Know About the Life of Honey Bees—M. H. Haydak.

10:00 a. m. The Ways of the Wild Bees—R. L. Fischer.

1:45 p. m. Know Your Honey—Jane Leichsenring.

2:45 p. m. Honey Bees and Pollination—B. A. Haws.

3:45 p. m. The Right Diet for Bees—M. H. Haydak.

**Thursday—January 15**

9:00 a. m. Preparing Colonies for Honeyflow—M. H. Haydak.

10:00 a. m. Honey Harvesting and Marketing—C. D. Floyd.

1:45 p. m. Queens and Queen Rearing—M. H. Haydak.

2:45 p. m. Late Summer Management and Wintering—C. D. Floyd.

3:45 p. m. In Partnership with Bees—L. B. Dickerson.

**Friday—January 16**

9:00 a. m. Adult Bee Diseases and Enemies—T. A. Gochnauer.

10:00 a. m. Beekeepers and the State—T. L. Aamodt.

1:45 p. m. Brood Diseases and Their Control—T. A. Gochnauer.

2:45 p. m. "The Honey Makers"—A motion picture.

3:45 p. m. Beekeeping Problems—Discussion panel.

**Lake Region  
Beekeepers Assoc.**

**Alexandria, Minn., Jan. 13**

The next meeting of the Lake Region Beekeepers Association will be held in Alexandria, Minn., on Tuesday, January 13 at 8 p. m.

L. W. Sundberg, Sec'y

**Hobby Apiculture Society  
St. Paul, Minn., Jan. 13-16**

The Hobby Apiculture Society is working on an educational program for beekeepers and plans to hold evening meetings during 1953 to coincide with other beekeeping activities. The first will be held one evening during Farm and Home Week at the University Farm, St. Paul, Minnesota (Jan. 13 to 16). Others will be announced in our Notebook of Events on our Beekeepers' Shelves of the new University Farm Library.

Arthur J. DeMars, Secretary

**Westchester Co. Beekeepers Assoc.  
New Rochelle, N. Y., Jan. 18**

The Westchester County Beekeepers' Association will hold its next meeting at 2:30 p. m. Sunday, Jan. 18, at the Odd Fellows hall, 20 Lockwood Ave., New Rochelle, N. Y. The meeting will be a short one after which we will retire across the street to the Coronet Tea Room to have our 11th annual banquet.

Carlton E. Slater, Publicity

**Notes . . .**

Ireland reports one of its best honey years in 1952.

Retail price of honey in England in city shops varies from 35 cents to 45 cents.

Basingstoke in England is planning on a memorial church window to Charles Butler (Feminine Monarchy, 1634) who was vicar there for forty-two years.—H. M. Fraser

British aviators during World War II were instructed by the British Air Force, if forced down in Ceylon, to avoid Bambara colonies on combs in the wilds. (Bambara is *Apis dorsata*, builds in the open. The bees are  $\frac{3}{4}$  inches long and very vicious.) So far all attempts at domesticating this bee have proven unsuccessful. (Bee Craft)



# The Market Place . . .

## BEES AND QUEENS

**SELECTED ITALIAN QUEENS** 75c each, Caucasian 90c, Carniolans \$1.00 each. All queens shipped by Air Mail and guaranteed to please. Walter D. Leverette, P. O. Box 364, Ft. Pierce, Florida.

**YELLOW ITALIAN QUEENS**, package bees for 1953. Health and service guaranteed. O. E. Brown, Route 1, Asheboro, North Carolina.

**YANCEY HUSTLER** Package Bees and Queens. Ready to go April 1st. Booking orders; no advance payment required. Caney Valley Apiaries, Bay City, Texas.

**CAUCASIANS**—2-lb. pkg., \$3.00; 3-lb. pkg., \$4.00. Untested queens, \$1.00 each; one tested, \$75.00. Tillery Brothers, Greenville, Ala.

**THREE-BANDED ITALIAN** bees and queens for 1953. Write for prices. Alabama Bee Company, Geo. E. Curtis, Mgr., Graham, North Carolina. Phone 4703.

**GOOD PACKAGE BEES AND QUEENS** for 1953. Three-banded Italians only. Outstanding honey producers. Long experience, ample financial responsibility and over 1000 colonies to draw from makes this a safe place for your order. Write for prices, stating the number of packages you need. H. C. Short, Fitzpatrick, Ala.

## FOR SALE

**FOR SALE**—Approximately 100 colonies of bees and extra equipment. Mostly new and standard. Also 45-frame extractor, over 100 new 60 lb. cans, capping knives, electric imbedder, and other equipment too numerous to mention. W. M. Sheridan & Sons, Sutton, Nebraska.

**FOR SALE**—Diamond Spinner used one season, in good condition. Stainless steel, \$200. 1500 standard 9 1/4 inch new K.D. frames at \$8.00 per hundred, f.o.b. A. B. Chenovick, 825 Helena, Helena, Montana.

**NEW AND USED Electro-Flo** filling machines. Models from \$165.00. Ask about our free trial plan. Hancock Honey House, Hancock, Iowa.

**200 8-frame colony outfit** complete, \$1900.00. Also small home and honey house on main highway, \$1600.00. J. W. Lunsford, Ludowici, Ga.

**FOR SALE**—1000 once used 60-lb. cans, just like new, 30c each. F.O.B. here. Honeymoon Prod. Co., 39 E. Henry St., River Rouge 18, Mich.

**1000 10-frame 6 1/2-inch supers** with combs drawn from crimp wired foundation. No disease. Only \$2.00 each. E. E. Salge, Box 59, Garland, Texas.

## HONEY and BEESWAX WANTED

**WANTED**—All grades extracted honey. Send sample, price and quantity. Deer Creek Honey Farms, London, Ohio.

**CASH PAID** for honey in all grades. Submit samples. Schultz Honey Farms, Ripon, Wisconsin.

**WRITE FOR SHIPPING TAGS** and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by letting us work it into foundation for you. Walter T. Kelley Co., Clarkson, Kentucky.

**CASH PAID** for white and amber extracted honey. Send samples and state quantity available. Prairie View Honey Co., 12303 Twelfth St., Detroit 6, Mich.

**WANTED**—Good quality honey in 60's. Send sample. Quote price. Clearbrook Honey Farms, Clearbrook, Minnesota.

Copy for this department must reach us not later than the tenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rate of Classified advertising—13 cents for each word, letter, figure or initial, including the name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on comb must guarantee them free from disease or certificate of inspection from authorized inspector. The conditions should be stated to insure that buyer is fully informed.

**WANTED**—Extracted honey, white or light amber, in 60's. State price in first letter. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

**HONEY WANTED**—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

**CARLOADS** or less of honey and wax. Send sample and price. Alexander Co., 819 Reynolds, Toledo, Ohio.

**WANTED**—All grades comb and extracted honey, large or small amounts. Quote price in first letter. Mail sample. King Honey Co., 4908-10-12 E. Truman Road, Kansas City, Mo.

**WANTED**—Extra white and light amber honey. Let us ship you the containers. Sell us your honey for CASH on delivery. The Hubbard Apiaries, Manufacturers of Bee Supplies and Comb Foundation. Onsted, Michigan.

**WANTED**—Cut-comb and strained. Send samples and price. Cole Honey Co., 4460 Piedmont Ave., Oakland, Calif.

**WANTED**—Water white clover honey, truck or car lots; also light amber. Mail sample and lowest cash price. Write Stoller Honey Farms, Latty, Ohio.

## HONEY FOR SALE

**100 CASES** white clover comb honey, partly sugared, \$3.00 per case of 24. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

**TRUCKLOADS** clover honey in sixties. Walter Roose, Sac City, Iowa.

**ANY GRADE**—any amount. Alexander Company, 819 Reynolds, Toledo, Ohio.

**CLOVER EXTRACTED HONEY** in sixties. Ralph Gamber, 910 State, Lancaster, Pennsylvania.

**HONEY**, white clover, 15c per lb. 5 sixties or more, 17c. Satisfaction guaranteed. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

**FANCY TUPELO** and gallberry chunk comb, 1 1/4 and 2 1/4 lb. square jars. N. Forehand, Destin, Fla.

**75 cases** of sweet clover section comb honey. L. W. Miller, Piper City, Ill.

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## POSITIONS AND HELP WANTED

**WANTED**—Helper in queen and package bee production to be paid mostly in packages. Can supply small house, water, light, gas. Work until near end of season, about May 20th. Good wages and agreeable working conditions. S. J. Head, Crossett, Arkansas.

**WANTED**—Experienced beeman, able, active, clean habits and good truck driver. For migratory honey and pollination production in California. Wages and opportunity open. Reply fully. A. Innes, Sausalito, Calif.

**WANTED**—One experienced and one inexperienced man for 1953. Must give references. Steady work for the right man. Howard Weaver, Navasota, Texas.

**HELP WANTED**—Two men for the package season, March 15 to May 15. Please give full information in first letter. H. C. Short, Fitzpatrick, Ala.

**RELIABLE HELPER** for all around work in commercial beekeeping. New home with modern conveniences available. Give details and wages expected in first letter. Plechowski Honey Farms, Redgranite, Wis.

**WANTED**—Experienced beeman. Also have bees to rent on share crop. C. H. Schader, Sunnyside, Washington.

**WANTED**—One experienced beekeeper for 1953 season. Kindly give full particulars and references. Address Box 2, c/o American Bee Journal.

## WANTED

**MIDWESTERN BEEKEEPER** with 1000 colonies will either buy or run on shares with option to buy from 200 to 500 additional colonies. Must be 10-frame equipment with full depth supers preferred. Write Box 53, c/o American Bee Journal.

**WANTED**—1000 two-pound packages during April. Give price. Address Box 41, c/o American Bee Journal.

**WANTED**—3 45-frame Root extractors in good condition. Top price for good machines. Millard Stahlman, Buhl, Idaho.

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## CAUCASIAN

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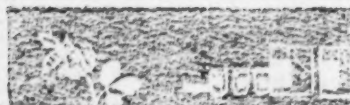
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## CROP & MARKET

by M. G. Dadant

### How Is Honey Selling?

There was a decided spurt in the sale of honey during November and early December but a number of our reporters are indicating that the pre-holiday season has not been heavy for sales and this applies particularly to carload lots. Montana, especially, is reporting carloads with no bidders and the suggestion that perhaps packers were pretty well filled up for the early winter, at least at support prices, although there were a number of carloads sold at above support prices earlier in the season.

The California crop has largely been sold, much of it going abroad and being included in the some 17 million pounds which were shipped to foreign countries, Germany taking over half of it. Indications are that sales have been particularly good in the Northeast and in the Midwest on retail and this applies especially to the larger cities where effects of the PMA campaign are more definitely shown. While there may be a lull during the holidays, it seems apparent that sales will push up after the holidays are over. However, we do not learn of any big packer who is in hard straits for honey and many of them claim they have sufficient to last them for considerable time. Smaller packers, naturally, have more difficulty in locating LCL lots.

### Is Bulk Hard to Find?

In some instances bulk honey is hard to find and as stated above this is particularly true in some sections and with packers who are not buying in carload lots. We have learned of several lots moving at as high as 13 and 13½ cents to help the packer and distributor to continue on his sales without any lapse. Literally, however, in the big producing areas honey is not too hard to find. In the Southeast and South, more generally, honey is fairly well cleaned up, in fact much more definitely so than in the years past.

### Prices Offered

In general, support prices rule. In some cases there are offers of somewhat above support prices for

LCL lots but in Montana, at least, the beekeepers state they are not being offered a maximum of support prices and perhaps some of the honey will still go under loan.

In general, however, amber is moving at about 10 cents a pound and white at 11½ to 12c, depending on the section of the country, as established by price support regulation.

### Are Sales Above Last Year?

In practically all sections of the country, sales are above last year, particularly in a retail way, although some sections of the Southeast report poor sales and in some sections where the crop was short, as in Indiana and Ohio, sales are naturally not as good since there is not the honey to offer. Montana and Oregon report carlot sales not as good as a year ago. This is perhaps due to the fact that the crop may have been held when the heavy spurt of demand was on in October and early November.

### Moisture

There have been general rains throughout the entire country and the entire country needed them with the exception, perhaps, of Florida and Nevada. Copious rains have fallen in the Southwest and all over the South but they arrived late. However, the southern beekeepers have been made very happy by the additional rains and this applied as well throughout practically all of the North although the Plain States of Kansas, Nebraska and South Dakota need more rain as do the western provinces of Canada. Some sections of the Red River Valley have had rain but not what they consider sufficient and this applies as well to sections of the northern valley bordering the states of Iowa, Minnesota and South Dakota.

### Drought Damage

Here we come to a very intangible proposition. Most reporters feel that while the honey plants certainly cannot have escaped drought damage through the long dry fall, condi-

tions were not such as to make a "burn-up" of clovers and other legumes. In other words the weather was moderately cool, evaporation was not heavy and a certain amount of moisture was brought up from the subsoil. It is true, however, in many localities that the rains have not been sufficient to wet very deeply and the dry conditions earlier undoubtedly meant the damage to late seedlings of the various legumes both north and south. The Missouri River and Plains areas report fairly good rains but not sufficient to help the plants. It will largely depend on the weather from now on, through the winter and spring, as to whether there will be any appreciable damage to honey plants. An open winter in the Southwest and South, allowing the soaking down of moisture and an opportunity for the young vetch and other plants to grow, may greatly make up for the difficulties of the past fall.

On the other hand, icy conditions and big runoff of water without the opportunity to soak the subsoil may mean dry roots for the plants and seedlings and the possibility of much loss by the time the producing season comes in 1953. However, there have been wonderful rains throughout the country and they came at the most critical time so that beekeepers are taking hope as are the farmers in those same sections.

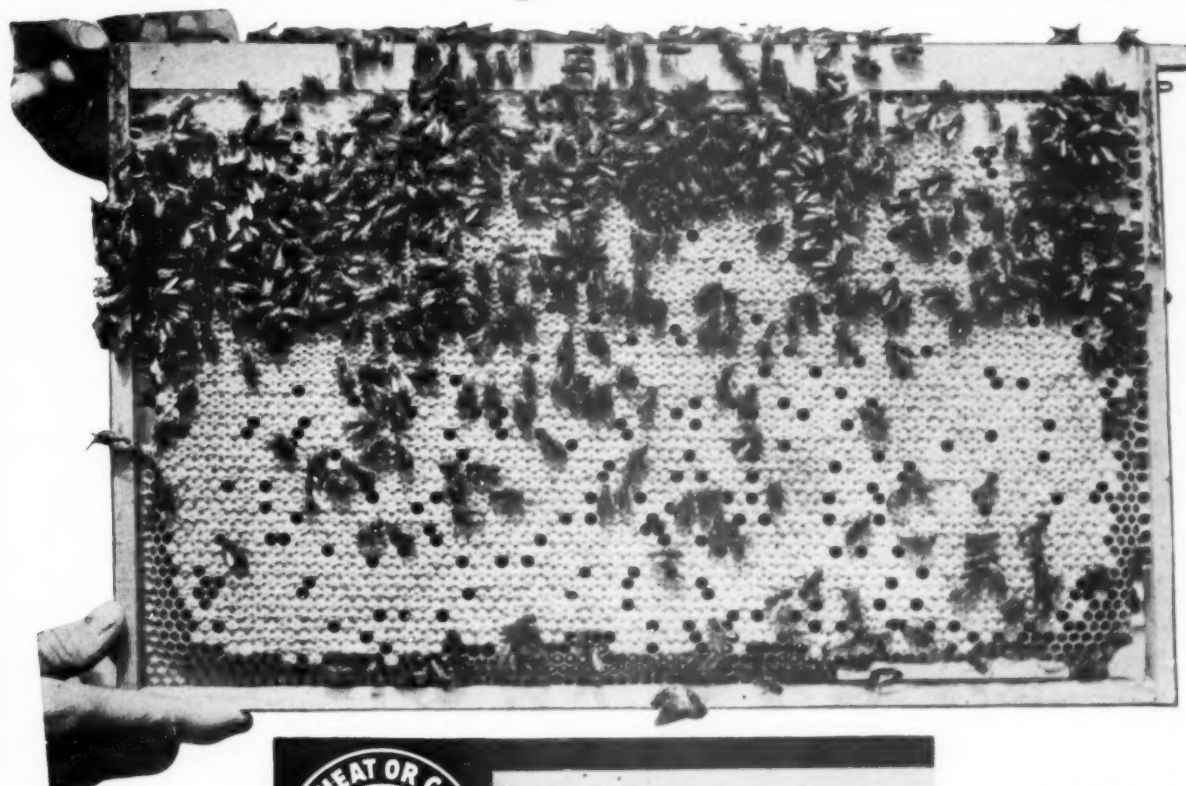
California apparently is due for another good year in 1953. There was a grand amount of moisture for the plants in 1952 and the dry areas have come through without difficulty and new rains are reported in most sections during December. Heavy drought also has been broken in Oregon and Washington during the middle of the first two weeks of December so that conditions there are much improved.

### Summary

All in all, bees are going into winter in excellent shape. Honey plants have had much moisture and honey is moving fairly well although there has been a slight lull during the holiday season which should resolve into an appreciable advance in demand during January.

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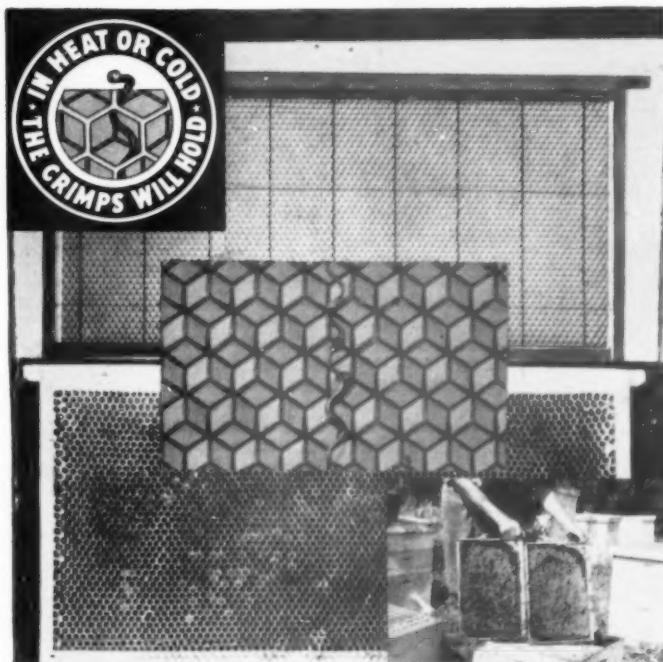
few drones

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more bees

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bigger crops



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